

Vol 4 No7

July \$3\*

# The Australian **COMMODORE** and **AMIGA REVIEW**

**EUPHONY**

**ADVENTURER'S**

**C64 Relocatable Memory**

**REALM**

Review:

**OCP ADVANCED  
ART STUDIO**



Registered by Australia Post Publication No NBG 6656  
\*Recommended retail price

**Amiga Today**  
INSIDE



# FREEZE MACHINE



DISTRIBUTED BY  
MICRO ACCESSORIES OF S.A.

MADE IN SA



Micro  
Accessories  
of S.A.



# The Australian Commodore and Amiga Review

Vol 4 No 7 July 1987

## CONTENTS

### HARDWARE

- 8 User Report - the Amiga 1000 - why did I buy an Amiga 1000?  
And was it a good decision?

### GENERAL

- 32 Inside your Service Centre - a peek into Queensland's  
Commodore Service Centre

### SOFTWARE

- 12 Advanced OCP Art Studio - easy to use, yet very powerful  
16 Game of the Month - Double Take - an ace of a program  
20 Behind the Screens - the games Auriga, Sport 4 and Mr Angry  
21 Print 'n Wear - transferring graphics from your computer to your  
T-shirts, etc  
25 Euphony - write and play long pieces of music in up to three voices  
with this package for the C64  
30 Megasoft Bulletin Board - software for the C64 & 128  
44 Getting the best out of Disk Magazine Seven - it's double-  
sided, and full of programs ready to run!

## AMIGA TODAY

between pages 24 and 25

### PROGRAMMING

- 42 C64 Relocatable Directory - utility for the C64  
46 Oscilloscope - new improved version

### Australian Commodore Review

Top Rear, 4 Carrington Road, Randwick, NSW 2031

Phone: (02) 398 5111

Published by: Saturday Magazine Pty Ltd.

Editor: Andrew Farrell

Advertising: Ken Longshaw (02) 398 5111

Production: Brenda Powell

Layout: Amanda Selden

Subscriptions & back issues:

Tristan (02) 398 5111

Distribution: NETWORK

Printed by: Ian Liddell Commercial Printing

### REGULAR APPEARANCES

2 Editorial

4 Ram Rumblings

6 Letters

24 Hacker's Hotline

34 Arcade Action

36 Adventurer's Realm

# Editorial



In February this year we ran a story entitled "Rich man, poor man, beggar man, pirate". In short it caused a minor uproar, especially one paragraph which read:-

"More often than not the modern day pirate's clipper is the 'User Group'. Founded as a means by which users of a particular brand of machine may swap ideas, exchange information and try out new products, they sometimes turn into full scale swap clubs where even pre-release versions of programs are readily available to all and sundry."

There seems to be some confusion as to what my attitudes are toward user groups as a result of that statement. Let me clarify. I am in no doubt as to the fact that a good number of clubs and groups do fall into the above category. However, it must be said in all fairness that most of

the higher profile groups maintain strict order and discipline with regard to the problem of piracy.

To them I say congratulations, and keep up the good work. For those who dispute the existence of the other class who flagrantly disregard warnings to halt their activities, I ask :- Why did a certain gentleman contact me to inform me that their user group would now require some form of I.D. for registration of membership to be accepted?

Was he perhaps concerned that his group would be infiltrated by the anonymous members of G.A.S.P.? If so, what have they to hide? And what of reports of groups with membership brimming on the 300 mark, who regularly gather, clutching computer, disk drive and their disk collection, in order to trade with other members?

Piracy is a problem. I refer not to the petty copying of programs for a single friend, but to the large production scale distribution of software through such gatherings and groups. It is to these ones that the aforementioned article was addressed.

In the main, user groups are a fine means of contacting other users for an interchange of useful information. We encourage such groups and support them where possible. Any user groups with a further voice to add to this issue would be welcome.

*Andrew Farrell*

## *Make sure of getting your copy - subscribe now!* The Australian Commodore Review DIRECT SUBSCRIPTION

Please enrol me for ..... issues subscription to The Australian Commodore Review, commencing with the ..... issue. I enclose a cheque/money order for \$ .....

OR

Please charge my Bankcard or American Express card, number .....  
Expiry date .....

Name: .....

Address: .....

..... Postcode .....

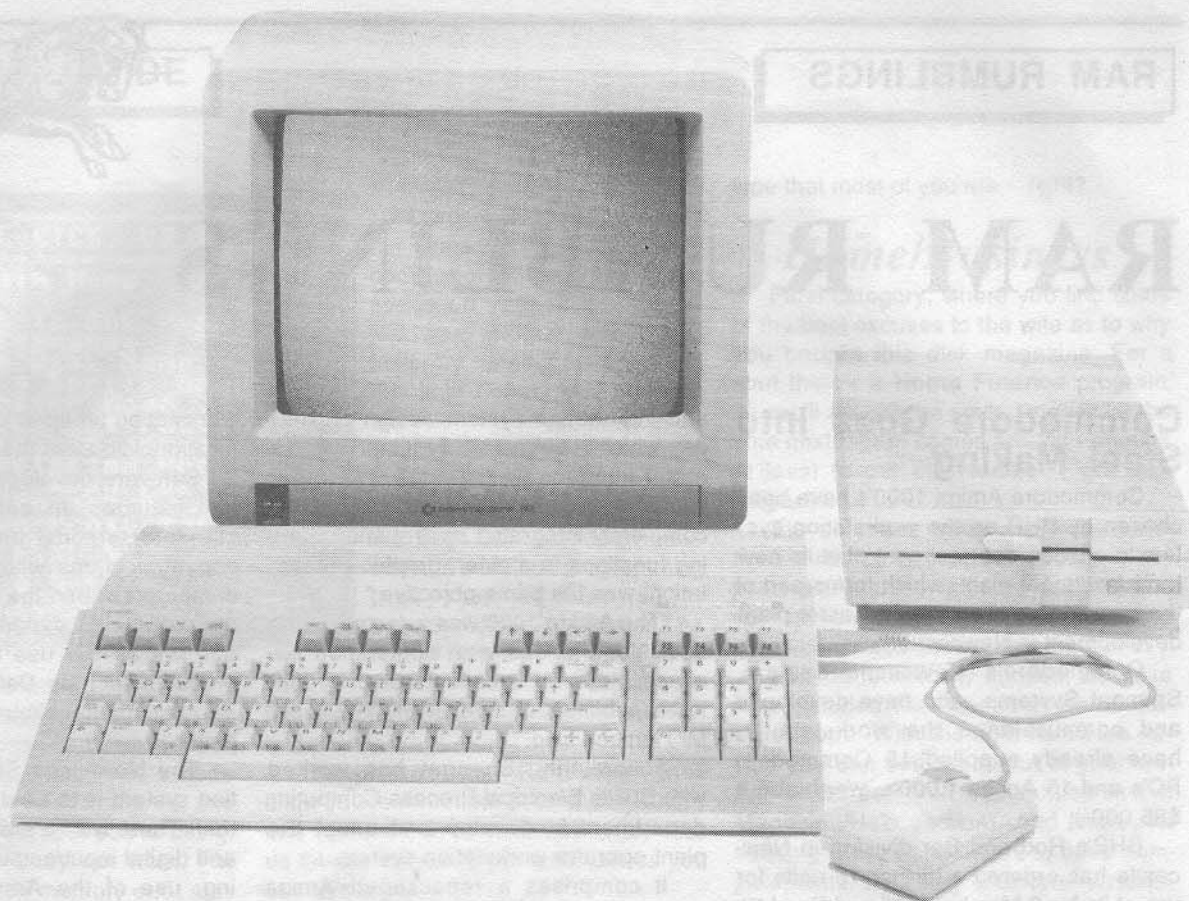
Rates within Australia:

6 issues \$18.00 (including postage)

12 issues \$34.00 (including postage)

TO: The Australian Commodore Review  
Top Rear, 4 Carrington Rd  
Randwick NSW 2031.  
☎ (02) 398 5111.





# The Commodore 128

## ...so powerful, it's 3 computers in 1



### It's a productivity computer!



The Commodore 128 will amaze you with its new generation of powerful yet easy to use productivity software. Like 'Jane', which allows you to follow simple symbols instead of typing complicated commands. And because it's so easy to learn, you'll have the 128 working hard in minutes! You get 128K of RAM both 40 and 80 column displays, and 16 colours for graphics.



### It's a family and education computer!



Switch to Commodore 64 mode and you can use more than 3,000 software packages proven on the Commodore 64, The World's No. 1 selling computer. That's power – power for studying, word processing, education, home accounts, programming, fun and games and much, much more.



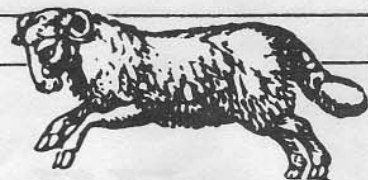
### It's an advanced business computer!



The Commodore 128 lets you use software packages like 'Wordstar, dBase II and Supercalc', all in 80 columns. The Commodore 128 gives you all the computing power most businesses will ever need now or in the future.

**Power without the price. \$699.**





# RAM RUMBLINGS

## Commodore Goes Into Steel Making

Commodore Amiga 1000's have been chosen by BHP as the workstation system to provide operator control at its new ladle treatment plant, which forms part of the new \$110 million Bloom-Caster plant development in Newcastle.

Commodore's Newcastle dealers, Spengat Systems, who have developed and commissioned the workstations, have already supplied 15 Commodore PC's and 15 Amiga 1,000's, worth about \$85,000.

BHP's Rod and Bar division in Newcastle has ordered a further 16 units for use at its No 2 Merchant Mill and Rod Mill. These will provide the operator level interface for its new comprehensive Production Management System (NEWPROMS). Spengat Director Richard Spencer said he was anticipating orders for a further 34 units as well as 15 Amiga 2000 systems as part of this project.

BHP Senior Electrical Engineer, Craig Harrison said that BHP have a control

and information system design philosophy which requires a fully integrated operator interface workstation. "The provision of a universal workstation to provide completely integrated control and reporting functions in a clear, graphic presentation, was the prime objective."

"The Amiga 1000 was selected as the basis for the operator workstation because it offered excellent colour graphics capabilities at a relatively low cost," Mr Harrison said.

Accordingly, Spengat has worked with BHP's Electrical Process Computing department to develop and adapt the plant operator workstation system.

It comprises a repackaged Amiga 1000 for 19" rack installation and includes a Spengat-developed 1.25 - 2.5 Mb memory expansion board to achieve a totally ROM-based system. The board incorporates a further four asynchronous serial ports for plant communications. A Spengat developed, industrial duty, programmable keyboard provides the operator entry capability.

The Amiga workstation interfaces

with various levels of computers at the plant and provides concurrent information on a full range of systems — from product scheduling to plant monitoring and control. "The provision of a universal workstation to provide all these reporting functions in a clear, graphic presentation, was the prime objective," Mr. Spencer said.

The Amiga

workstation provides concurrent communication with all of these systems.

Software developed for the workstation includes an enhanced industry-standard terminal emulator (vt100) for communications with the various other computers within the installation. A fully programmable dynamic graphics package allows the use of Amiga painting products such as *DeluxePaint* or *Aegis Images* for development of application pictures.

The Newcastle Steelworks workstation system is to be developed even further. There will be provision for analogue and digital input/output for plant monitoring, use of the Amiga text-to-speech capabilities and inclusion of a video interface. Further software will include a graphics database, additional communications protocol drivers and networking capabilities.

"Amiga has proved its graphics capabilities are the equal of much more expensive graphics dedicated workstations — and the multi-tasking ability of the Amiga allows the development of software to cope with concurrent communications," Mr. Spencer said.

## Commodore Announces \$60 million Private Placement

Commodore International Limited has announced the completion of a \$60 million private debt placement with The Prudential Insurance Company of America.

The placement is composed of \$20 million senior notes and \$40 million subordinated notes with warrants for 2,250,000 capital shares exercisable at a premium above the current market price.

Irving Gould, the Company's Chairman and C.E.O., state "The Company is pleased with achieving another step to strengthen its capital base and enhance its financial flexibility."



Mr. Spencer and Craig Harrison at an Amiga Terminal



## RAM RUMBLINGS

Dillon Read & Co., Inc. assisted in the placement of this financing.

### Commodore Appoints Chief Financial Officer

In a further indication of increasing support of the company, Commodore has announced that Richard Leberman has joined the senior management of the Company in the position of Vice President, Chief Financial Officer and Treasurer.

Mr Gould stated, "The appointment of Richard Leberman further strengthens the management of the company in bringing to the company an impressive background of over 20 years in finance."

Prior to joining Commodore, Mr Leberman held financial positions with PepsiCo, Inc. and Metromedia, Inc. Most recently, he was Vice President, Chief Financial Officer and Treasurer of John Blair & Company.

### Commodore Amiga Number One

A 670 per cent increase in sales of the Commodore Amiga in Australia made it the top selling personnel computer to the small business market for April according to figures released recently by the computer research company Compass Research.

The monthly analysis shows that Commodore Amigas claimed 10 per cent of the market, coming in ahead of IBM's PC/XTs and Apple.

Commodore New Product Manager Mr Tony Cuffe said, "This is an amazing display of support for the Amiga which is little more than one year old."

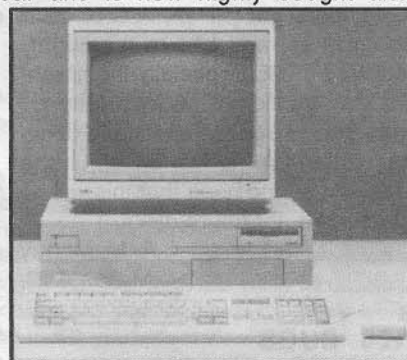
"When it was first introduced we predicted that it would take the market by storm, and it has certainly done that," Mr Cuffe said.

The latest figures by Compass show that the Amiga is out-selling by 3 to 1,

what the market has traditionally regarded as Amiga's major competitor, the Apple Macintosh.

"I believe the Amiga will remain high on the list for computer users, particularly small businessmen, as more and more business software becomes available later this year," he said.

The Compass figures are good news for Commodore's remaining business PC range which was introduced earlier this year and is now highly sought after.

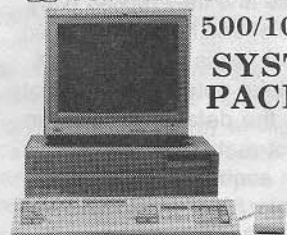


## Keep up with Commodore at Maxwell The Commodore Centre

The largest range  
the very latest and  
**No. 1**  
for  
SALES, SERVICE  
and SUPPORT



500/1000/2000  
SYSTEM &  
PACKAGES



Sidecar, Hard Drives 3½" & 5¼" Drives, Parallel & SCSI Drives, Digitisers, EasyL, Penmouse, Synthesizers & M.I.D.I., Graphics & C.A.D. Music & Sound Samplers, Games & Business, Color Dot Matrix, Thermal & Inkjet Printers, Desktop publishing.

#### \* NEW RELEASES \*

Butcher, Dimmer, Flipside, Parhome, Phasar, Maxiplan Plus, Prism, Best Acc., Pro-video CGI, Digiview II, Supra Drive, Guild of Thieves, Power Windows, Cli Mate, FS Scenery II, Custom Screens, Delux Video 1.2, Kings Quest III, Flight Sim. Cable.



**C64/128**

1201/1802/1901 Monitors, 1541C/1570/1571 Disk Drives, Cartridge Expanders & Joysticks, 128 Ram Expansions, Lightpens, Mouse EPROM programmers & Blank Cartridges, Business, Accounting, Word Processing, Databases, Spread sheets, Inventory, Gen Ledger, Languages, CAD.

#### \* NEW RELEASES \*

Graphics Galleria, Flight Sim, Japan & Star Disk, Mario Bros., Air Combat Emulator, Artist 64, Geos. Prog. Ref. Guide, Geos Printer Cable, IBM to 64 Printer Cables, 64 Serial to RS232 Faces, How to get the most out of Geos Disk, Army Moves, Disector V Wonder Boy, Barbarian, Family Feud, BBS 64/128, Stifflops.

**C=PC**

5/10/20/40  
COLOR &  
MONO  
SYSTEMS



Hires Mono, Hires Colour, Business Software, Hard Drives, Hard cards, AGA cards, Multifunction Cards, Mouse & Joysticks, Ram upgrades, Package offers.

#### \* NEW RELEASES \*

OMNI 123, Retailer, Motor Trader, Rental Manager, PSI 5 Trading Co., F15 Strike Eagle, Mean 18, Conflict in Viet Nam, Boulderdash II, Star Trek, Top Gun, Great Escape, Kings Quest, Silent Service, Dam Busters, Championship Boxing.

**MAXWELL** 162 NICHOLSON ST., ABBOTSFORD 3067 • PHONE (03) 419 6811 • VIATEL 64266

Australian Commodore Review 5



# LETTERS

## TO THE EDITOR

### DISK MAGAZINES

I have got all six A.C.R. disk magazines, and I have thoroughly enjoyed them. Especially the graphics and music on the latter disks. I was glad to see the expanded documentation for the No. 6 disk, in the July issue, and hope that this will be presented for future disks.

A. McMurray  
Melton, VIC.

### 128 BUGS

I read your article in the May 1986 edition "The First 100 Days", which worried me, because I intend to buy a Commodore 128D. I was therefore wondering if these errors have been fixed, and where I could get a "correct" C128D.

Michael Bone  
Strathalbyn, S.A.

**Ed:** A new ROM is due for release shortly which will correct the majority of known bugs. Watch for details under Ram Rumblings.

### PROGRAMMING

I have been getting your magazine for nine months now, and I have found it a very good, and an entertaining magazine. I do not want to sound as though I am complaining, but I would like to see a few more articles on programming. Maybe you could have a column where people send in ideas on a program, and others (who are more "into" programming) could write the program according to the ideas. This might then be published in the magazine. I realise that it is very difficult in organising and printing a magazine in time, but please consider adding a few more program-

ming orientated articles.

Even so, you have a great magazine, keep up the good work.

Michael Bone  
Strathalbyn S.A.

**Ed:** We have!

### GEOS vs SUPERScript

Dear Paul Blair,

I'm glad that you have your column as I use *Superscript* and am a loyal supporter, in fact I consider your column one of the main attractions to the mag.

A friend of mine has *GEOS* and there's a few differences.....he believes that *GEOS* is better and I think *Superscript*.... of course his is better in aspects of Graphics and the support such as the fontpacks, but *GEOS* really falls down in the wp'ing area (another friend who designed and runs a bbs says his bbs message commands has more word processing commands than *GEOS*!!). I'd like to hear your opinion. Also how about some tips or something concerning the word checker and other aspects of *SS*, in your second column I can already see you leaning more towards *Superscript*! Perhaps this is because of lack of interest or information, I hope not!

Printers, this is also a point where *SS* overpowers *GEOS*, you can customise your printer driver in *SS* (set commands, preset keys (forgotten the name for that) and generally customise it more for your taste), whereas in *GEOS* you're stuck with set printer drivers and if you don't have the appropriate printer (perhaps a cheap import that isn't covered) well TOUGH! The

friend and I both have an Epson GX-80 (I think the best printer you can get for the 64, either that or the mps 1200) and as an example, I have commands on *SS* for it hanging off the keyboard everywhere, where on *GEOS* he has to use the 1525 driver which severely cuts back on the GX-80's functions such as the fine NLQ, Enhancement, Condensed printing etc., as the commodore 1525 does not have those and so the driver will not let the printer do that! A big disadvantage.

When I first used my GX-80 I had a nagging problem; whenever I printed a file I had a '?MM!' at the front of all my documents which really bugged me, (the setting is CBM dot matrix) so a friend (a different one to the other two!) wrote to Epson with a print-out of the CBM dot matrix file and they replied (very helpful people) and helped us get rid of it. The problem is in (*SS* and GX-80 owners take note!) the CBM dot matrix file, the default file loads in the CBM dot matrix file, and in the initialization sequence, sets up funny characters (the '?MM!' that kept on popping up). The solution to this is to load up the CBM Dot Matrix file on your work disk, list it until you get near the end where it says:

PUT IN PROGRAM

Right, the problem is the first line (the printer initialise sequence), you have to delete the numbers 63 to 13 (the characters for the '?MM!' sign that is so annoying, so your result will look like:

PUT IN SECOND PROGRAM

Of course it has all the other stuff in front of it, all you have to do



# DREAMSCAPE MARKETING PTY. LIMITED

The people who let your dreams come true

Commodore C64				Amstrad			
Title	Type	Price	Quantity	Title	Type	Price	Quantity
Gauntlet	C/D	39.95	-----	Green Beret	C	39.95*	-----
Top Gun	C/D	39.95	-----	Cobra	C/D	39.95	-----
Highlander	C/D	39.95	-----	Dragons	C	39.95*	-----
Cobra	C/D	39.95	-----	Dragons Lair 2	C	39.95*	-----
Short Circuit	C/D	39.95	-----	Iowa Jima	C	39.95*	-----
Dan Dare	C/D	39.95	-----	Tau Ceti	C	39.95	-----
Dragons Lair	C/D	39.95	-----	Tobruk	C	39.95*	-----
Dragons Lair 2C/D		39.95	-----	Top Gun	C	39.95*	-----
Shogun	C/D	39.95	-----	Shogun	C	39.95*	-----
Star Trek	D	39.95	-----	Rambo	C	39.95	-----
Gunship	C/D	49.95	-----	Trailblazers	C	34.95*	-----
Thrust	C	10.00	-----	Thrust	C	10.00	-----
Warhawk	C	10.00	-----	Rebelstar	C	10.00	-----
Red Max	C	10.00	-----	Gunstar	C	10.00	-----
Invasion	C	10.00	-----	Ninja Master	C	10.00	-----

\*Also available on Disc for \$49.95

Please add \$4.50 for Postage and Handling to all orders

All stock purchases subject to Australian availability at time of order. Please allow 21 days for delivery.

REMEMBER the above list is only a small selection of our extensive range of software available through our distribution centre. For further information and our **FREE** price list of all games please write to us at the address below.

NAME:.....

ADDRESS:.....

.....

.....POSTCODE:.....

YES, YOU CAN CHARGE! - CREDITCARD MINIMUM \$10.00

Please debit my Bankcard/Mastercard .....

Expiry Date...../...../.....

(Authorised Signature if CHARGED)

Amount Enclosed \$.....

Send to: Dreamscape Marketing PTY. LTD.

Shop 7 Charnwood Shops

P.O. Box 87

CHARNWOOD, ACT, 2615

## LUKE'S 'LECTRICS

Complement your  
1541 Disc Drive  
by

Giving it an  
optional alternative  
device number for  
those occasions  
when you  
use two drives.

\*Simple Installation

\*Kit Includes Full  
Instructions

\*\$11.95 covers postage

Mail Orders to :

LUKE'S 'LECTRICS

P.O. BOX 323

BEENLEIGH Q 4207

## NASHUA DISKETTES CHEAPEST IN TOWN

5 1/4 DSDD \$17.50 + P.& P.

3 1/2 DSDD \$39.00 + P.& P.

Quad Density and 8 inch call

### Printer ribbons made like new

I will re-ink your old fabric ribbons for  
less than half the price of new ones!

e.g. Epson \$4.00 + P&P

### Phone Now

9 a.m. to 5 p.m. (047) 36 3364

After 5.30 p.m. (02) 636 2080

## AMIGA PC 10/20 (IBM COMPATIBLE) COMMODORE 128 COMMODORE 64

Specialising in all  
Commodore hardware and  
software requirements.

### UNITED COMPUTERS:

991 Stanley St, East Brisbane 4169  
(07) 393 0300

COMPUTER VIEW: 21 Brisbane Rd,  
Bundamba, Ipswich 4304 (07) 282 6233

SCARBOROUGH FAIR

COMPUTER CENTRE: Shop 17,  
Scarborough Fair Shopping World,  
Southport 4215. (075) 32 5133

is delete those numbers and voila,  
no more '?MM!' on your printouts.  
Once you have deleted the num-  
bers, save and replace the CBM dot  
matrix file on your work disk.

So there you are, no more

hassles with your GX-80, lets see  
you do that on GEOS!

One last thing, although out of  
place, I liked the Netcomm modem  
review. (Guess who has a Netcomm  
modem!?!?), though perhaps it

could have been a bit longer and in-  
depth but still a good review by the  
editor. That's all for now, keep on  
SuperScripting!!!

Gavan Lim-Joon  
Rosanna, VIC



### USER REPORT

# THE AMIGA 1000



Why did I purchase an Amiga?

I don't really know. Possibly it was the result of an article that I read in a computer magazine that raved about its virtues but was reasonably silent about its vices.

Possibly it was the salesman.

Everyone advised me to buy an IBM compatible, and the range of software certainly pointed in this direction. But I needed a computer that would allow my children to play games, practise on educational software, and generally get used to a computer. My wife needed a reasonable word processor, and I needed to be able to run accounting packages, spreadsheets and data bases. Now all you armchair experts, did I make the correct choice?

Oh, I forgot to mention that I hoped to encourage my son's artistic interests, and that I considered a colour monitor essential.

But, yes, I agree that there is little good business software available as yet and that there are no sophisticated word processing packages. I really purchased in anticipation that the software will become available, the cart before the horse concept, I know. Yet, the Amiga has the ability to run very sophisticated programs and has exceptional graphics capabilities. So please software developers, don't let me down!

Looking at the price, I was getting a complete unit, keyboard, monitor and processor for little more than I would have paid for a lesser unit plus a monitor and possibly a disk drive. Yet, it could have been cheaper to have purchased an IBM compatible machine. Time will un-

doubtedly tell whether or not I have made the right choice, but at the moment I'm very happy.

## AT HOME WITH THE AMIGA

I didn't take the car into Melbourne, I took the train, and that is how I brought the Amiga home. It must have looked

the monitor. I was really good and read the reference books supplied with the processor and monitor first, then proceeded to connect up all the parts.

The reference book is quite clear on how to link these up, but was silent on two connectors that emerged from the cable connecting the processor to the monitor. Initially I ignored them, and it

wasn't until some time later that I discovered that unless I plugged them in to two colour coded connectors at the back of the processor, I didn't get any sound.

However, when the big moment came to turn the machine on for the first time, the red lights came on but the screen remained steadfastly blank black. Oh, the despondency. I removed and reinserted all the connections, for the

manual did state "push in firmly". Oh joy, the screen lit up a whitish grey, that was all. Further despondency. I played with knobs to no avail. I read the relevant sections in the reference book, but could find nothing. It was my wife who remembered the pull down flap on the front of the monitor, and there I found two small switches, one marked RGB, the other, GREEN. A simple press of the RGB switch and the monitor lit up displaying the upside down disk. After that, things seemed to sail along smoothly.



quite strange to the passers-by to see me staggering along with two largish boxes and several plastic bags containing all the essentials. The railway ticket personnel were certainly sympathetic, and took my word for the fact that the return train ticket was in my back pocket!

Home. Boxes on the floor, and with a curiosity enhanced haste removed all the packing, tape and materials. The units were certainly well packaged, though I wondered at the position of the keyboard, packed with little protection above



## HARDWARE REVIEW

Now, after a month's continuous use, no more hardware hiccups have come to light. The only things to concern me a little are the noises. The cooling fan is noisier than I had expected. In the shop I could hardly hear it, but in the peace that transcends the household after the children go to bed, it sounds quite noisy. However, it is significantly quieter than another type of computer I had at home last year. The second noise belongs to the disk drive. This has a grumbling sound all of its own. I'm used to it now, but I prefer a silent disk drive. From past experience noisy disk drives become problem drives. So I'm keeping an ear on this one.

On the positive side the keyboard is excellent to use. The keys have a positive feel about them which my wife appreciates as a high speed typist. Me, I just feel at home with this keyboard, with its uncluttered appearance and easily located function keys.

Conclusion: the machine is performing excellently but inadequacies in the reference manual have led to some hiccups. Unfortunately this state of affairs continues to plague me.

## THE SOFTWARE

The machine came with four disks, *Kickstart 1.2*, the *Workbench*, *Amiga Extras* which consisted of *Amiga Basic* and the *Amiga Tutor*, and *Kaleidoscope*. I pur-

chased three other programs, *Deluxe Paint II*, *Textcraft* and *Keyboard Cadet*.

The *Keyboard Cadet* program was to stop me being a key-pecker in two digits, and to try and get my eldest son to touch type as well. Despite good intentions neither objectives have been achieved. However it is a good training program. It teaches you to type in a space age arcade game type of setting. You decide the group of keys you wish to learn and the speed, then you are transported to the flightdeck of a space ship and as the letters and later words appear on the screen coming towards you, you must shoot them

down by pressing the correct key or combination of keys. If you fail to hit the correct key (s) in a reasonable time then the letter or word crashes into your space ship. If this happens too often, you lose.



Solid Software's  
**LOTTOcheck**

19 7 11 15 37

for the Commodore 64 & 128 Computers.  
Available direct from developers, or from leading dealers soon - via the distributor, *Imagineering*.

LOTTOCHECK is now available in 3 versions:

- TATTSLOTTO (45 numbers, AUSTRALIA),
- GO LOTTO (40 numbers, NSW),
- POOLS SIX-38.

(IBM PC version available soon - write for details)

**HURRY! - price rise to \$59.95 in late August.**

- With PRIZE option you select a set of numbers or a System entry and Lottocheck goes through all past draws tallying up all prizes in each division, that would have been won with those numbers.

- You can select random numbers, which appear on screen as bouncing coloured balls.

- The GRAPH option produces a histogram of the frequencies of numbers drawn, up to the present.

- The powerful EVALUATE option lets you test theories and predict next weeks draw, using computed rankings of all numbers.

- Other options include list and print together with the usual database functions ADD, INSERT, MODIFY and DELETE which use professional fullscreen, form-like input screens.

- Package includes program and data disks plus extensive handbook on Lottocheck, winning strategies, and the maths theory of LOTTO.

Excellent value at \$49.50 each version (includes postage, tax), payable by cheque(), money order(), or credit card:

Please charge my Bankcard ( ) Visa card ( ) (tic payment method):

I want the tattslotto(), golotto(), pools six-38() version. (tic one)

Card NO: \_\_\_\_\_ Expiry date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Address: \_\_\_\_\_



Solid Software,  
P.O. Box 218,  
Belgrave, Vic. 3160



There is a realistic sound track that goes with the program, but I prefer it turned off. Getting old, or I don't like others knowing when I make mistakes, cross out which ever does not apply. De-

## NOW AVAILABLE

For Your C-64 OR C-128 (In 64 Mode)

The team that brought you Snapshot 64, the best selling memory capture device on the market, has done it again!

### ANNOUNCING SUPER SNAPSHOT — THE ULTIMATE UTILITY CARTRIDGE!!! —

**SUPER SNAPSHOT** combines several functions into one new cartridge. First and Foremost, **SUPER SNAPSHOT** is a state of the art memory capture device. This means you can load a program into your computer's RAM and at the touch of a button, capture an exact image of your memory. That image can be saved to disk, allowing you to make working, unprotected backups of your software and that's just the beginning **LOOK!**

— Unique interrupt system allows you to access all **SUPER SNAPSHOT** functions from within a running program and then return to the program exactly where you left

— On board Hi-Res and Basic screen dumps will work with Commodore 1525, 1526 and compatible printers

— Our TURBO DOS is the most compatible cartridge fast loader available

— Simple to operate thanks to our exclusive window driven menus

— Unique 24K RAM/ROM system operates completely outside of computer's memory

— On board DOSWEDGE supports devices 8,9,10,11

— Our ROM based machine language monitor allows you to interrupt a program, make changes and then resume - a hacker's dream come true

Last but not least, **SUPER SNAPSHOT** is designed to be upgradeable, simple plug in ROMs will allow you to add new modules, such as pre-programmed function keys, turbo format, fast disk copy, fast nibbler, etc., as they become available.

ALL THIS FOR ONLY **\$79.95**

plus \$5.00 P.&P.

**EXCLUSIVE AUSTRALIAN DISTRIBUTOR — SHOP 64 COMPUTERS**

2 Mead Street Mall, Kalamunda, 6076 (09) 293 3062

Dealer Enquiries Welcome



spite the space age background, the program is a good teacher and encourages you to succeed. There is a keyboard in view at the bottom of the screen on which the correct letter or combination of letters is highlighted. Errors you make are highlighted on screen and on the keyboard below. Learning sessions are not long enough to become tedious, though the early sessions appeared longer than they really were. As familiarity crept in the lesson times became more acceptable.

The program gives you points for each training session and if you fail to achieve sufficient points a recommendation to repeat the lesson appears. But, there is no report on you and there is no way of calculating the number of letters per minute typed, except in the last lesson. If you are looking for a typing tutor that teaches you to type in an interesting fashion, this is a good program. But if you want the extras such as typing speeds achieved, you will have to look elsewhere.

### TEXTCRAFT

*Textcraft* is a simple, no frills word processor. My wife, who is an expert on typing, preferred it over *Scribble*. I find it easy to use, but I have a few gripes. So let's get these out of the way first.

The major gripe is the inability to set tabulator positions so that, for example, I can type figures in columns. I tried one day to type two columns of information on the page. This would have been a simple operation on a normal typewriter, or, on some other word processors I have used. On *Textcraft* it was a real problem, and in fact, I never acceptably finished that piece of work.

The second gripe is that there are no line numbers shown, so you are never sure precisely where you are on a page. There is a blue line across the screen that indicates the page end but it is impossible to find the centre of a page and for some work this is frustrating.

The third gripe is about the method of shifting text around in a document. This cut and paste method sounds easy but I find it time consuming and prone to errors. The older method of indicating the beginning and end of a block and the moving of the block to a new cursor position was quick, easy and I certainly made fewer errors. Perhaps my age is showing.

My last gripe is that I cannot use this program with the *Deluxe Paint* program, and add pictures to the text. This is a great pity as the two would complement each other very nicely. Apparently the *Prowrite* program does this so I look forward to trying it out when I can scrape together the necessary funds.

These minimal gripes apart, the program has operated flawlessly for the whole family. My seven year old uses it with ease to do letters and stories, my wife and I use it for writing letters and I use it to write reports and set test and examination papers.

We have all found *Textcraft* very easy to learn and use. There are some very likeable features in this program, such as the ability to move the cursor anywhere in the text by utilising the mouse. This is an excellent feature, especially for people like me who make lots of mistakes, or decide to add words to existing sentences.

*Textcraft* has many features of the more sophisticated word processors. It has a very easy to use but effective find and replace command, there are three printing styles and it is easy to use superscript and subscript. Also what you seen on the screen is what you get from the printer. I know there is no spelling checker or mail merge option, but for the average user, such nice extras are not commonly used. One very nice idea is the incorporation of ready made forms. Though these follow American styles, I have found them useful with certain mod-

ifications. There are ready made outlines of business letters, reports, memorandums, term papers and resumes. If you choose one of them a requester appears on the screen asking you for certain information. You type this in and the program puts this information on the screen in the correct format.

For example, business letters. Once you have typed in all the answers to the requester, the program displays on screen all this information in the block style with the cursor positioned under the salutation. This facility speeds things up considerably. My favourite is the ready made report format that creates the title page, index and bibliography. But remember, some changes must be made to remove the Americanisms.

In summary, an excellent basic word processor, with some very interesting and useful features, but if you want any more than the basics you will have to look at other programs.

*Deluxe Paint II* is a program I got talked into buying both by the magazines and the salesman. It is undoubtedly an excellent program if I could ever completely use all its capabilities. At the moment I feel I am only scratching the surface with it and with a black and white printer I can hardly tap the potential. I need a year and lots of practice before I even attempt to formulate any judgement on this program. Perhaps it may have been better to have purchased a simpler program first and become proficient with it, then moved on to *Deluxe Paint*. Whatever, I will continue to be frustrated by this program. With luck my son will master it before I do.

In the future, I need to obtain a good spreadsheet, accounting program and database, for the business side of my work, and I would like to dabble in a basic desk top printing program. The children will want more education games, or just games. So we are happy with the Amiga. I hop it will be a long happy relationship.





## GAME REVIEW

# Classic Snooker

by J. Mark Hunter

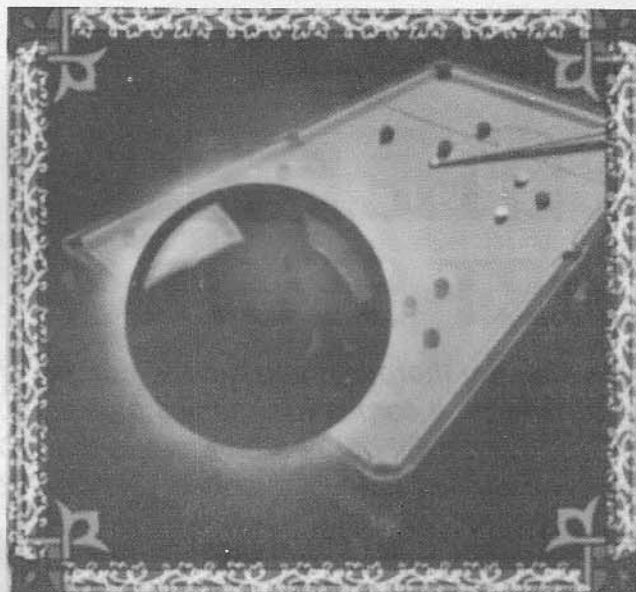
Cruise and Newman wouldn't have gone on the road hustling with this one. There's no money in it, and barely a game. When it comes to screen simulated sports you tend to quickly rate a game according to its comparison with the real thing. I've never killed an alien before, so every time I do it on my keyboard I guess it's the right way and you can't criticise it too much. But after playing an extensive amount of pool in the suburban club scenes, I'm rating this *Classic Snooker* right behind the eight ball.

After being given the option to select the number of players, either you and an opponent, or the computer, you then select the grade of play, amateur, novice or professional. Before taking a shot you choose the ball you want the cue ball to hit. This is done by moving the cursor which is a cross wire to the exact point on the ball you wish the cue ball to hit

and press the fire button. Then, whether your shot will be calling for spin to the ball. The manual will tell you how to do this. The power of the stroke is determined by you according to the meter at the bottom of the screen. It's disappointing that there is not even a cue stick represented. You only see the balls

move after pressing the fire button. The movement of the balls is deliberate, sluggish, too computer, and the colour a fickle imitation. No music, no sound, cheap graphics...I should stop now.

About this time I reminisce about *Leader Board* and *Ping Pong* and remember how good they were. I won't be doing that with *Classic Snooker*.



Graphics	:41
Presentation	:42
Documentation	:43
Overall	:47
Game	:ClassicSnooker
Distributor	:I.S.D.
Publisher	:Codemasters
Price	:\$9.98

## Commodore C64 PROBLEMS?

HERE IS YOUR NO FUSS SOLUTION

A RETURN MAIL BOARD EXCHANGE SERVICE

INCLUDING 3 MONTHS WARRANTY  
AT AN UNBEATABLE PRICE OF

**\$89.00** INCLUDES  
POSTAGE AND HANDLING

\*Simply undo a few screws to remove your computer board from its casing and unplug power lead and keyboard connectors.

\*Your board must be complete with all chips etc. and must be in a serviceable condition.

\*CHECK your power supply is not at fault before sending your board.

\*Your exchange board is sent by certified mail the same day we receive your board. Full re-assembly instructions included.

Mail securely packed board with remittance of \$89 to :-

**PARCOM PTY. LTD.**  
**FREE POST NO. 9 CARINA QLD.4152**  
**PHONE (07) 395 2211**

BANKCARD-CHEQUE-POSTAL ORDER

NAME.....ADDRESS.....

PC.....

PHONE.....PAY BY CHEQUE.....BANKCARD.....POSTAL ORDER.....

CARD NO.....EXPIRY DATE.....

SIGNATURE.....DATE.....

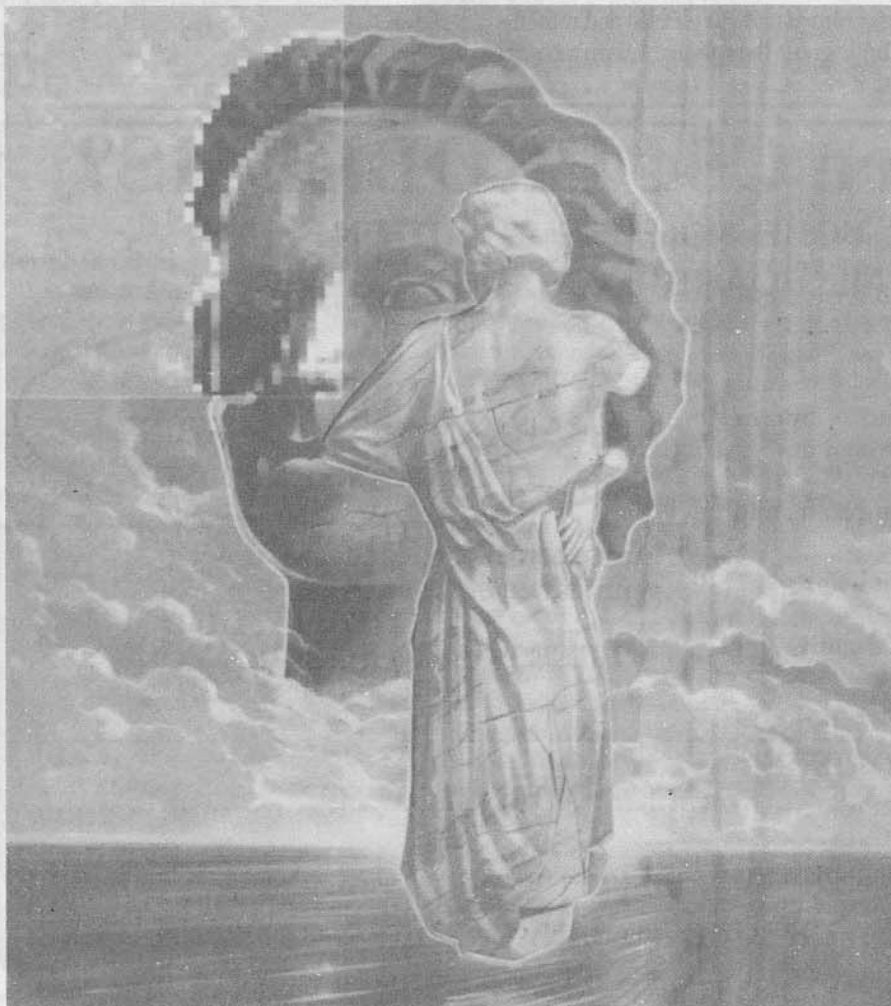


# THE <sup>TM</sup> ART STUDIO

*It would seem there is no end to the number of improvements possible when it comes to graphics packages. Yet another in the fray, somewhat better than most, is the OCP Art Studio. Andrew Farrell puts the Advanced version through its paces.*

I originally saw the *OCP Art Studio* prior to the enhancements that this Advanced version offers. Even then I was moderately impressed. On arrival of the Advanced version, the example pictures on the package's rear were enough to make me literally tear into the shrink wrapping in a desperate bid to see it in action.

I was immediately dismayed to find we had been sent the cassette version to review - something I despise at the best of times. On this version the first program you load allows you to define your printer set-up. This in turn generates a new program which is then saved as your working copy. Having done this I promptly Freeze Framed the resultant code to



produce a disk based version.

A few other utilities and example pictures included on the tape were also loaded and saved to disk. With that out of the way I got on with the job of examining this new techno-artistry program.

## Operation

Once loaded a small two line menu bar appears at the top of the screen and an arrow as your pointer. Pressing the Commodore key and the space bar simultaneously allows you to toggle between four different input mediums. These include a mouse, koala pad, keyboard or joystick.

Having a Datex optical mouse handy, I tested it and found that it worked perfectly. The menu hides part of your display, however using a small slide scale it's possible to bring the hidden portion into view.

Options in the menu bar include print, colours, fill, paint, text, undo, file, windows, magnify, shapes and miscellaneous. Just to the right of these the current X,Y position of your pointer is displayed. By moving to any of these options and pressing the fire button, or left mouse or koala pad button, a pop down menu appears.

The pointer will then highlight the available selections. Pressing the button again will choose the currently highlighted option. I suggest the first thing you do is to take a look at the example picture called "Baboon" which demonstrates exceptionally well the potential of *OCP's Art Studio* - (see the front cover of this issue).

Operating in multi-colour mode rather than hi-res like its predecessor, the package is capable of colour mixing in a similar vein to the *Micro Illustrator*. This gives you a resolution of 200 vertical and 160 horizontal dots or pixels. In *OCP's Studio* there is a range of facilities normally only found on software running on



# NetComm believes Commodore owners have waited long enough.



It seems Commodore owners are a patient lot. While other PC users were discovering the delights of communications, you had to wait for someone to design a modem just for you. And while the others were enjoying the convenience of auto dial and auto answer, you were left waiting again.

But now, with the introduction of NetComm's Modem 64/128 for Commodore, your wait is over.

The Modem 64/128 is a full-feature, two-speed auto modem compatible with all existing commercial and public domain software, including Commodore 1650 software.

It operates at 300/300, 1200/75 and 75/1200 baud.

It comes complete with Videotex and Terminal software and even a VIATEL subscription form.

It provides auto dial, auto answer and auto disconnect features you'd only expect to find on much more expensive modems.

All modem features are software controlled, with a full 7-LED display reporting all operational modes.

And it comes complete, with Telecom approval, ready to plug in and run.

All this, plus NetComm's legendary reliability, for less than \$300, excluding tax.

So now, what are you waiting for?



## NetComm

### Total Solutions for Data Communications

NetComm (Aust) Pty Ltd • NSW PO Box 284 Pymble NSW 2073 Tel: (02) 888 5533 Telex: AA27488 MODEMS Minerva: 07:DNC002 Viatel: 288855330  
VICTORIA 94 River Street South Yarra 3141 Tel: (03) 241 0534 QUEENSLAND Suite 6 Level 11 AMP Place 10 Eagle Street Brisbane 4000 Tel: (07) 229 7376





the Amiga, with the exception of one comparable package - *Artist 64*.

Some of the menus contain options which don't actually perform any specific function, but rather allow you to toggle or switch various effects or options on and off. In this case a small tick or cross will appear beside the relevant word.

## Colour

One of the most powerful functions is the ability to control colour priority and exclusions. The palette is selected using the simple to understand Ink, Paper, Border format. When painting, certain colours may be chosen as being of a higher priority than others. A colour of low priority cannot wipe over a colour of a higher priority, making it possible to colour in the background using brush strokes that

won't destroy the foreground.

By excluding certain colours it's possible to filter out unwanted background images when you are using the cut and paste function. Any process that would normally be performed on a colour that is excluded is simply ignored. So if you had a man (yellow) wearing a red jumper and blue jeans and he was originally painted on a green

background you could, by excluding the colour green, cut out the man and use

will take foreground positions, whilst others will appear as the background.

Using the Fill option you may colour an object quickly. You may choose between a solid, pattern or wash fill. If you make a mistake, pressing run-stop part way through the fill will abort the operation - useful when you discover unwanted 'leaks' in otherwise solid forms.

Pattern fill is very powerful, allowing a selection of twelve complete multi-colour patterns of varying size to be used. These may be edited and saved using a very powerful built in editor with flip, scroll, and copy functions built in.

## Drawing

Before you can draw you must select

a pen, brush or spray can from the paint menu. Brushes, of which there are twelve in all, may be edited and saved to disk or tape. There are also eight spray patterns, with a range of diameters which produce random like results.

A variety of shapes are available, including lines, rays, rectangles, triangles, circles and ellipses. These may be stretched to the desired size and proportions using the elastic function.



him as a brush or to paste elsewhere on your drawing.

The priority selection of colours is also very important when merging two pictures together. Objects in colours with the higher priority

Text may be added to your pictures, in a variety of X, Y sizes, spacing, and with optional bold or italic mode. Characters entered may appear left to right, right to left, upwards or downwards. Characters may be edited, and your own fonts designed and saved to disk or tape.

The built in font is a sort of computerish face, based on an eight by eight pixel block. Editing of sorts is possible on text as you enter it on the screen, however generally you must get it right the first time or UNDO your mistakes and start the line again.

Access to stored pictures, fonts and brushes is quick and simple. The pull down menu provides a directory of available files along with an array of house-keeping commands. Hi-res picture formats may also be loaded from the old





## SOFTWARE REVIEW



OCP Art Studio using a special conversion routine.

You may format a disk, rename files, delete files, change the device number, or merge pictures. Loading is a simple procedure involving a few swift presses on the appropriate button. No typing is necessary.

### Windows

Windows are simply an area of the screen which may be outlined and upon which various functions may be carried out. A window can be the entire screen, or a small part of it, and is visible by a dotted rectangle around the particular area. You may then clear, cut and paste or rescale the window.

You can also rotate 90, 180 or 270 degrees, flip on the X or Y axis or make multiple copies of a window. Again a pow-

erful function that makes intricate drawings, that appear to have taken hours of work, a simple matter of knowing how to fully use OCP's studio facilities.

Another option that is very useful in detailed drawings is Magnify. Screens may be viewed in 2x, 4x or 8x their true size. Individual pixels may then be modified in any of the sixteen colours. Slide

bars on the left and bottom of the display make it possible to scroll around the magnified picture.

The print menu provides scaling, single or double density, sideways and left, right or centre justified picture dumps. One final menu worth mentioning is miscellaneous. From here you may vary the mouse speed, disk and tape set-ups, clear the screen, vary the cursor type and display the program's version number.

### Conclusions

Easy to use, yet powerful enough to keep most budding artists well and truly busy (until they can afford an Amiga!). The windows system with pull down menus works exceedingly well. It's almost possible to use the program without reference to the manual

which is well written and filled with useful illustrations.

The documentation is indexed, and a utility is included to load picture designs into your

own programs. It looks like we'll be using OCP's *Advanced Art Studio* as our office drawing package - it's that good. Other programs might do more, but what this one does, it does so smoothly and simply there ain't much that will come close.

So, as far as road tests go, the program performed well. Handling in the straights was smooth and quiet. Corners were a little bumpy in multi-colour mode (as expected), but the power and elegance of European design gleamed against the other more cumbersome alternatives about.

Crash proof and user friendly ... I recommend this one as first choice on my short list of graphics software.

Recommended retail is around the \$79 mark. Distributed in Australia by ISD.



### FREE SOFTWARE for COMMODORE 64/128

Any one of these four programs:

1. Race Selections Analyser
2. Lotto Selections Analyser
3. Typing Tutor
4. Maths Tutor

on disk or tape, will be yours **free**, when you buy our new book  
**COMMODORE 64/128**

#### TREASURE CHEST,

a compact and handy guide, full of unusual programs, subroutines and programming hints. Make your own programs using POKES, PEEKS, USR, SYS and other tricks.

For details of book contents send your stamped and self-addressed envelope without any obligations.

Price of book is \$23.00 post incl. Please send cheques or money order to:

**APEX COMPUTER PRODUCTS**  
35 Spruce St, Loganlea  
Qld. 4204





## BEHIND THE SCREENS — GAME OF THE MONTH

# DOUBLE TAKE

by J. Mark Hunter

**Definition :** Something that you usually do twice - a double take. Two of everything - two pieces of pie, two cups of coffee, two girls. Double time, two-timing, one in the same. Double-time, double pay...enabling you to two-time. See how it all clicks together?

*Double Take* in the year 2008 is just a smidge different, and about as fun as two-timing. Opening screen sets you into a rather large, computer-controlled "Physical Particle Investigation Unit" out in the middle of a bleak and lonely landscape (Farrell's newly decorated bathroom), where the only sounds are the howling winds and the distant hum of the particle accelerator beneath the ground.

We have a young research assistant sitting at his terminal, drinking myriad containers of coffee and totally oblivious to the momentous chain reaction that his experiment is creating.

He's dabbling heavily into the inherent instability factors of particles of "antimatter" when held for periods of greater than a few seconds. (I was going

to get into that after university but this job came up ... this and dog grooming). But a hassler from abroad was keeping authorities busy enough without checking into the more mundane. The hassler was a cat called SUMINK.

Anyway, the general psychology of this game is that in life there are always mirror doubles. Nothing is totally unique. Few however would have believed that their whole universe was "double", that for every object in our universe there was similar object in an opposite universe. This opposite universe was Sumink's. And Sumink was bored. He was a warrior without a battle, a life without meaning but not without hope. His hope? - That a channel could be found between his universe and ours.

Keep reading, this game gets up your interest. What's happening now, via Sumink, is that the dude does find the missing link between his celestial turf and ours. This young assistant that was sipping caffeinated liquid suddenly finds his room slipping away from him, his movements becoming frozen, his reality no longer real. Sumink had, through a parti-

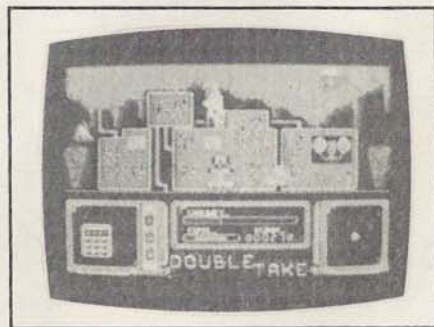
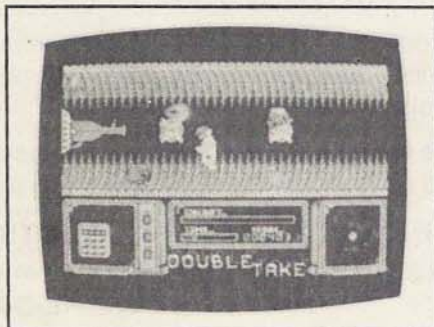
cle of "anti-matter", found his channel and was not going to wait for a second chance. The assistant was thrown into the sixth dimension where stability is dream and reality a myth, but where the battles are just as deadly.

The two universes collide briefly, both are made unstable, more objects pass between them and a state of flux is set up between our positive universe and Sumink's negative one.

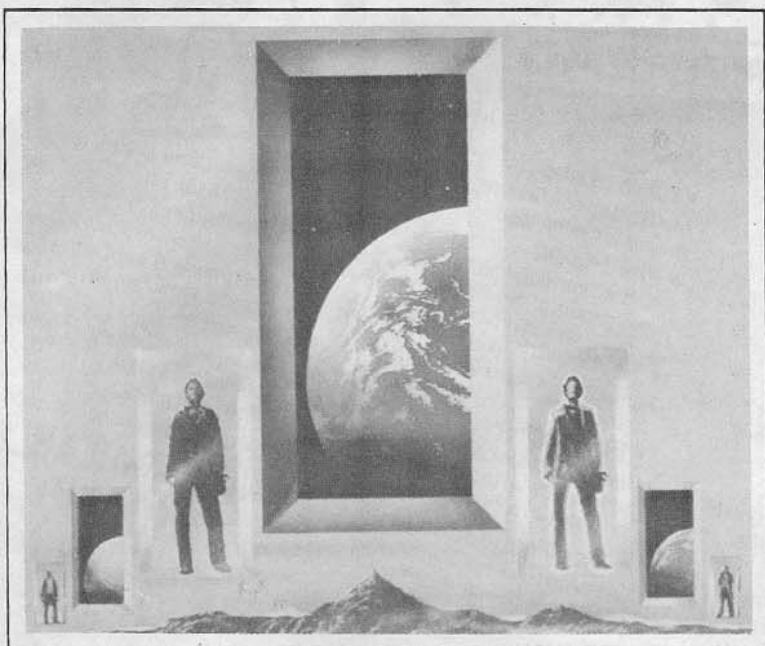
Two major things go down: 1) Objects from our universe swap places with their opposites in Sumink's universe, and 2) a sparkling cloud is created. This is a tunnel between the two sides; contact with this cloud will transport you to the other side.

Finally, the universe constantly changes and you may suddenly be transported to the other side, if you are not in a stable room. And you've got to do two things. 1) Place all objects into their correct universe, and 2)...hey, you know it and you been expecting it! Take on Sumink and defeat the jerk at will.

The game is set inside the complex itself and using the cyclotron [medical







term for the sparkling swirl cloud] as a passage to certain parts which cannot be reached otherwise, you must ensure that the whole complex is stable including the complex in the negative universe.

You play the part of the assistant, whose task is to stabilize the two universes by finding the correct location for any object which has been transported to its opposite universe. When this task has been accomplished you must then do battle with Sumink, which takes place inside the negative universe and your victory means you win the game.

When it comes to the objects of the game remember that everything in our universe has a double in Sumink's. If one of our objects has travelled to his universe then its opposite has travelled to ours. Transportation of an object without that object having been "stabilized" will change the object carried into its double. To transport an object back to its correct universe the object must have been stabilized by activating the "sparkling cloud" when carrying an object.

This "sparkling cloud" has the ability to allow you to cross between the two universes while keeping your object in the same state. To activate the sparkling cloud which is more like a cute little tornado on screen, place the character over it with the joystick and press fire.

The display panel is adequately effec-

tive. An energy bar shows either red or green, and energy can only be lost or conserved - carefully. All contact with aliens decreases your energy, and there's plenty of those. The clock on the clubhouse wall is a Universe Time Indicator.

Additionally, an electron display shows each double room, the currently active room and its mirror in the negative universe.

There are sixteen rooms in each universe, but you still have to wait for the john at peak hour. These rooms can be either stable or unstable, depending, I guess, on who's using it at the time. A far left screen displays the object you are carrying in its current state. On the right of this screen are three lights. The top light will be red if you are in a wrong universe and green for a correct one. The middle one applies to right or wrong rooms and the lower turns red if perhaps a positive object is placed in a negative universe. All three lights then need to be green before you can successfully find its right position in the room.

When all the rooms have been stabilized you must then go hunting for Sumink in the negative universe and rip his ears off. So we've got an interesting activity happening upon our screen once again and what a delicious alternative to zapping some fugitive alien. The pursuit of purpose in this cosmic reorganizing program is quite entertaining and pre-

sented in fine graphics and nothing but "positively" good sound effects.

In some ways it reminded me of the old *Pyjamarama* game, traipsing a character throughout various mansion chambers and ending up in some fanciful finale. From the cover though, I expected perhaps a little more "hard-edge" panoramas, crisper and more expertly animated character. The cover makes you want to turn your collar up and creep into the game with minimal disturbance, but once inside, my expectations evaporated quite quickly when the drawings presented themselves as quite "Howdy-doody" in a way, too cartoonist.

Still, an ace of a program and worth a "single take" at the games store.

### RATINGS

Graphics	:78
Sound	:69
Playability	:72
Music	:72
Documentation	:84
Presentation	:86
Overall	:84

Game	:Double Take
Distributor	:Ozisoft
Publisher	:Ocean
Cost	:\$29.95

**UPPER YARRA VALLEY & LILYDALE COMPUTERS**  
7 Castella Street, Lilydale, Vic 3140  
Phone: (03) 735 3734

**Wide range of Commodore hardware and software**  
Dust covers, joysticks, disks, games  
Business software - Brainstorm, dfile 128, dfile 64 etc  
**Best possible prices, helpful service**

**COME AND SEE OUR WIDE VARIETY OF MODEMS**  
all demonstrated in the shop, via our own bulletin board -  
**Yarra Valley BBS 059 64 3126**  
24 hours, 300/300 baud, 8 bits, no parity, 1 stop, \$25 a year membership, lots of download material



# Micro Accessories

## ALWAYS A STEP AHEAD of S.A.

### What FREEZE MACHINE

can do for you  
NOW WITH "SINGLE PART SAVE"

- **Freeze...**  
Totally unstoppable Freeze facility from the originators.
- **Fast Save...**  
Saves in as little as 15 seconds. Nothing else can match this.
- **Multiple Save...**  
Make as many saves as you want once frozen, in different styles if you wish.

- **Ultra Compact...**  
The most efficient compacter? Our tests indicate this, as many as 5-6 games per disk.
- **Game Killer...**  
Incorporates an effective routine to disable collision detection.
- **Independent...**  
Even produces stand-alone Lazer files that reload in as little as 10 seconds.

- **Ease of use...**  
Always a strong feature, now even more enhanced.
- **Multi-Load...**  
Standard cartridge handles many games of this type. With the utility disk, even more!
- **Fast Format...**  
Formats your disks in about 12 seconds.
- **File Copier...**  
Built-in, fast-file copier will handle files up to 248 blocks long and is really easy to use.
- **Two Fastloads...**  
A normal disk turbo at 5-7 times normal PLUS the

astounding Lazer at 20+ times normal... BUILT IN.

- **Selectaload...**  
Just use cursors to scroll to the program you want to load and press a function key.
- **Reset...**  
Built in, so you can enter pokes for more lives etc.
- **Tape Turbo...**  
For quick save/reload on tape.

**NOW AVAILABLE  
\$108.90**



### Quickdisc+

FAST LOAD PLUS UTILITY CARTRIDGE

After enjoying considerable success since its release we have now made some improvements to "QUICKDISC+" to maintain its position as the best value in the disk "speed up/utility" cartridges.

**Fast LOAD** (now 5-7 times normal speed). Works with majority of protected software. Can be switched in and out from the keyboard.

**Fast SAVE** at 7 times normal speed.

**Fast Format** takes just 20 seconds.

**Fast Backup** copies an entire disk in four minutes (not protected software).

**Very Fast File Copier** for selective file copying at HIGH speed. Now handles files up to 248 blocks long.

**Improved DOS commands** (DOS 5.1) makes for easy use of the disk drive e.g. (RETURN) will LOAD and display a directory without over-writing BASIC. SHIFT RUN/STOP will LOAD "0:" 8,1 etc. Very, very useful.

**Incorporates Centronics printer software** (user port) with CBM graphics capability (requires user port centronics cable). A RESET switch is fitted.

(We have found this to be "unstoppable", it even preserves the tape buffer).

**NO MEMORY IS USED** by this cartridge, it is totally "transparent" and uses special switching techniques.

"128" and 1570 compatible in '64 mode.  
**PLUS MANY MORE USEFUL FEATURES TO MAKE YOUR 1541 FAR MORE FRIENDLY TO OPERATE.**

**ONLY  
\$54.94  
NOW EVEN  
FASTER**



### DOLPHIN DOS THE EFFECT IS STAGGERING.

Now established as **THE parallel operating system** for the 1541 disk drive. Hundreds of satisfied users include business, hobby and full-time programmers including the **Gremlin Graphics team**. The speed and efficiency is truly unbelievable, it is compatible with the vast majority of commercial software, speeding up both the loading of the program and of SEQ/REL files. (It is brilliant with Superbase, Easyscript, etc.) For non-compatible programs it can be completely switched out. It DOES NOT use a special disk format and your existing disks will be compatible.

#### FITTING

Fitting involves the insertion of two sub assembly circuit boards, one in the 1541 and one in the '64/'128. These normally just plug in, but on some '64s a small amount of soldering is necessary.

#### STOP PRESS

Dolphin DOS wins C.C.I. Oscar for best utility of 1986. First ever 100% hardware rating in Computet review. Many more software houses now using D. DOS include: Superior, Alligata, Adventure International, Thalamus and Domark.

- SOME OF THE FEATURES**
- ★ 25x FASTER LOADING (PRG FILES)
  - ★ 12x FASTER SAVING (PRG FILES)
  - ★ 10x FASTER LOADING (SEQ FILES)
  - ★ 8x FASTER SAVING (SEQ FILES)
  - ★ 3x FASTER LOAD/SAVE (REL FILES)
  - ★ E.G. LOAD 202 BLOCKS IN 5 SECS
- (These figures do not allow for searching)

**ONLY \$169.00**

Available for CBM 64 or '128 in '64 mode, please specify

#### EXTRAS AVAILABLE

Kernal for '128 in '64 mode	\$40
User port expansion card (3 slot)	\$33
Dolphin Copy (Whole disk in 18 secs and lightning fast file copier)	\$33
Dolphin main board for second drive c/w lead	\$149

If you require further information please send SAE for fact sheet

### Introducing the New FSD-2

**Excelerator + Plus  
Commodore Compatible Disk Drive**

Faster, quieter and more reliable than the 1541 and 1541C. Breakthrough Direct Drive technology. Guaranteed 100% Compatibility. It even enhances GEOS! Full One-Year Warranty.

**NOW AVAILABLE  
\$364.95**





### DISK DISECTOR V5.0

Now the **FIFTH** generation of the country's leading disk back-up/utility package is available. This latest version includes **many more "PARAMETERS"** to handle the latest highly protected disks. This includes the latest **American and English software**. Be warned if you want to back up software by Ocean, Gremlin, Hewson, Domark and even U.S. Gold, whose protection schemes are **NOT** always the same as the American versions, then you **MUST** have "D.D.". At press date, we are **sure NO** other advertised product will handle all these, be it American or German.

#### INCLUDES THE FOLLOWING:

"EVESHAM 3 MINUTE NIBBLER" is the latest version of the infamous "Evesham Nibbler" now boasting **even more power and speed**.

#### Copies highly protected disks in 3-4 minutes.

Handles the latest types of disk protection **completely automatically**. This often involves the use of the "PARAMETERS", these add the vital secret code that the highly protected programs check for. (This is the important difference that makes this the best.) At the time of going to press this program copied **virtually all the English and American programs available for testing**, including the latest in games and business software.

"DUAL DRIVE NIBBLER" allows the use of two drives to make **even faster back ups**. Incorporates device number change software so no hardware mods necessary.

"EVESHAM 8 MINUTE NIBBLER" still very powerful and has been improved. Copies a few that the three minute version won't.

Many, many other useful utilities are included on the disk, including **SELECTIVE MENU MAKER, FAST FORMAT, FAST FILE COPY, NOVATRANS, DISK ORDERLY, DISCMON+, UNSCRATCH, ETC, ETC.**

The whole package is menu driven and has its own fast boot system built in for your convenience. Pays for itself the first day you receive it.

## ONLY \$54.94

Customers with earlier versions may return them along with a payment of \$25.00 to receive V5.0. Most routines are CBM 128 and 1570/71 compatible in '64 mode.

## Cockroach Graphics Utility – Cartridge and Disk ONLY \$75.90

Capture screens from games etc. Edit and modify captured screens.

Use graphics from Print Shop (2 or 3 block), Print Master and News Room (direct from Clip Art) in your own creations.

Make Print Shop (2 or 3 block) and Print Master graphics from any captured bitmap screen. Print out any captured screen (including sprites) on a variety of popular printers, including the OKIMATE 20 colour printer, 801/803, Epson, Star, BMC/Amust, etc.

Captured screens may be used in the powerful ROACH SHOW. This is the slide show which has extra fast loading without blanking the screen and has programmable display times. Ideal for rolling demos or educational use.

Driver program to allow use of captured screens in your own programs.

Bit mapped screens are captured conveniently in KOALA or DOODLE format and may be edited with these programs, or via the Display Editor supplied on disk.

Conversion programs allow use of other drawing programs.

Sprites and character sets are saved separately.

Captured pictures may be saved in compressed form, for speed and efficient use of disk space, and also to establish a standard for use with the printer routines and the ROACH SHOW.

### NOW AVAILABLE

## CARTRIDGE EXPANDER™ FOR C64™

#### QUESTION:

What is a Cartridge Expander?

#### ANSWER:

The Cartridge Expander extends the "GAME PORT" on the C64. Console by providing 3 additional cartridge "SLOTS" which will hold 3 of your favourite command modules.

#### QUESTION:

Can I use ATARI or VIC-20 Cartridges in the Cartridge Expander?

#### ANSWER:

NO. The C64 home computer will not operate with cartridges designed for other computers. The Cartridge Expander will not change the capabilities of the C64. You can operate any cartridge from the Cartridge Expander that runs in the console by itself.

#### QUESTION:

Why do I need a Cartridge Expander?

#### ANSWER:

The C64 home computer is made to operate only ONE cartridge at a time, however, there are several command modules that are more frequently used than others. Each time you "change" a cartridge, it causes wear on the connector within the computer, and eventually the connector simply wears out.

By using the CARTRIDGE EXPANDER, you can keep your favourite command modules plugged into the Cartridge Expander and select by using a switch rather than "unplugging" the cartridges.

The Cartridge Expander has a built in RESET button which can be used to reset the computer. Normally the computer is reset by turning the power off and on, or by plugging a new command module. The handy built in RESET button saves wear and tear on the console power switch.

## ONLY \$69.00

## FREEZE FRAME UTILITIES DISC V2.0

Now the first support disk to enhance even more the powers of "Freeze Frame". Included on this disk are many routines to enable the complete transfer to disk of more programs that load extra parts. It is used in conjunction with "Freeze Frame" Mk III and means that virtually all programs of this type can now be handled.

The program will be regularly updated when new programs of this type appear. Other useful utilities will be added as necessary. Owners will be able to update their disk for

## ONLY

## \$26.95

## ANTIKNOCK DEVICE

This package incorporates a new drive stop for your 1541 that will end for good the dreaded "woodpecker". The fitting is very easy and a test program is provided to check the fitment. Helps prevent future alignment problems and makes your drive purr with satisfaction.

## ONLY \$14.95

MICRO ACCESSORIES OF S.A. UNIT 8, HEWITTSON RD, ELIZABETH WEST  
SOUTH AUSTRALIA 5113 Phone (08) 287 0191

Made under licence to EVESHAM MICROS. Manufactured in South Australia  
Offer subject to availability

Send Cheque, Postal Order or Credit Card No.  
Credit Card orders accepted by phone. Callers welcome  
Wide range of goods stocked. Trade enquiries welcome. Plus \$3.00 P&P  
DEALER NETWORK AUSTRALIA-WIDE



# BEHIND THE SCREENS

with J. Mark Hunter

## Auriga

The *Auriga* Constellation, the Charioteer or Wagoner, containing the bright star Capella. And the story is that Earth needs the most skilled pilots for its New Space Fighter Squadron. And the test is a journey through the Uncharted Systems and battles with the Myriad of enemies found within. If you succeed all this and keep your *Auriga* class ship in tact to the very end you will be able to join the ranks of the Star Fleet. There are 16 Systems to enter before you can become a fighter pilot. Once this goal is reached,



you get tested further. They never end.

Laser fantastic! The concept behind *Auriga* is not bad. There's been better along

similar lines, but for now the sequences of razzmatazz special FX, the radiant swirls of maddening, buzzing enemy craft that hurl towards you in seemingly unprogrammed fashion and better than average graphics are worthy of acclamation.

### RATINGS

Graphics	52
Sound	43
Music	47
Presentation	60
Documentation	48
Playability	62
Overall	50
Game	AURIGA
Publisher	Players
Distributor	Melbourne House
Cost	\$9.99

## Sport 4

I thought the music was terrific, though the graphics, poor. If you're looking for something like a six-pack of exciting games forget it. It's rubber ducky material and can cut it at all.

The four games are ice hockey, water sports, burning rubber and tee-up. The ice hockey is just that, a simulation of the winter game and you take command of a team.

In the water sports category you can exhilarate yourself in three saturation capacities, power boat racing, shooting the rapids and/or the canoe race. In the power boat race category I thought the boat was a floating shoe because the graphics are so bad. The sound of the boat is an



excuse, and the explosion when you crash sounds like something Cecil B. DeMille would

have used for a chariot race. It was helplessly unmanoeuvrable and I got out of the water as fast as if a school of pirhana were out on a glutton spree.

Burning rubber didn't get any better. Stock car racing on here was a yawn. Tee-up was something Greg Norman uses to wipe his shoes.

But the music was good. I mentioned that already didn't I? Yes, I did. But are you going to listen to it or play it? I think

I'll throw it. Duck!

### RATINGS

Graphics	38
Sound	29
Music	60
Presentation	44
Documentation	49
Playability	10-20
Overall	40
Game	SPORT 4
Publisher	Anco
Distributor	Melbourne House
Cost	\$29.95

## Mr. ANGRY

These story lines are getting worse, and in Behind the Screens we feel we've got a duty to help you avoid disappointment at the video games counter.

*Mr. Angry* is a programmable farce. Set in a hotel, your task as a photojournalist is to snatch an exclusive shot of a "glamour girl" staying somewhere in the hotel. Search and destroy...

First, you must collect your camera, flash, press pass and the key to her room - all hidden in other rooms. At the bottom is a display registering the Editor's deadline. The hotel staff - porters, waiters, purser and cook, are on the chase for

you major eviction and as you get chased around the screen time runs out. Mr. Angry is the dude that you somewhere, somehow bust in on and ends the game....yes, though it's not mentioned in the manual...I think he gets busted with the glamour girl... It's all joystick controlled but a joystick doesn't do too much for the Code Masters' latest non-effort. The characters look good, but on screen graphics do nothing for them. Sounds and music are disturbingly ineffective and contribute to Mr. Angry being a very low-rated game in my estimation.

It's a good thing I get loaned these games for review, cos if I had to flip out hard-earned bucks for this waste of time I would have been one contemptuous Monsieur Angry.

### RATINGS

Graphics	46
Music	46
Sound	20
Presentation	30
Documentation	22
Playability	33
Overall	37
Game	MR ANGRY
Publisher	Anco
Distributor	Melbourne House
Cost	\$9.98



# PRINT 'N WEAR

by Eric Holroyd

*I made enquiries about this product as I had a specific project in mind that required an original design to be printed onto a track-suit top, and as I had just the right design stored away on disk with one of my graphics utilities, I thought it would be a great idea to use my computer equipment to do the job.*

Accordingly, I contacted the company advertising *Print'n Wear* (Computer View, 21 Brisbane Road, Bundamba, QLD 4304, ph 07-282-6233) and was pleased with their prompt postal service which brought me the package of goodies about five days after my enquiry. Off to a good start!

The package was well-presented and colourful and had a leaflet enclosed with some suggestions as to things you could decorate with *Print'n Wear*. Examples mentioned include:-

T-Shirts, Sports Shirts, Pyjamas, Underwear, Tote Bags, Sweat Shirts, Cotton-Jackets, Pillow Cases, Scarves, Hats, Overalls etc.

You could also transfer your design

onto fabric to be framed, or on curtaining fabric for a special touch to a youngster's room.

*Print'n Wear* is a special transfer paper which takes the printed output of your dot matrix or thermal ribbon printer using either black or coloured ribbons. You then iron the transfer onto the garment or other item, carefully following the detailed instructions which are helpfully printed on the reverse of the *Print'n Wear* transfer paper. (The instructions don't transfer of course, only your own design.) It's quite a quick job to iron on the transfer and the garment is ready to wear straight away. The sheets of *Print'n Wear* are easy to feed into a printer individually, or you can tape the leading edge of



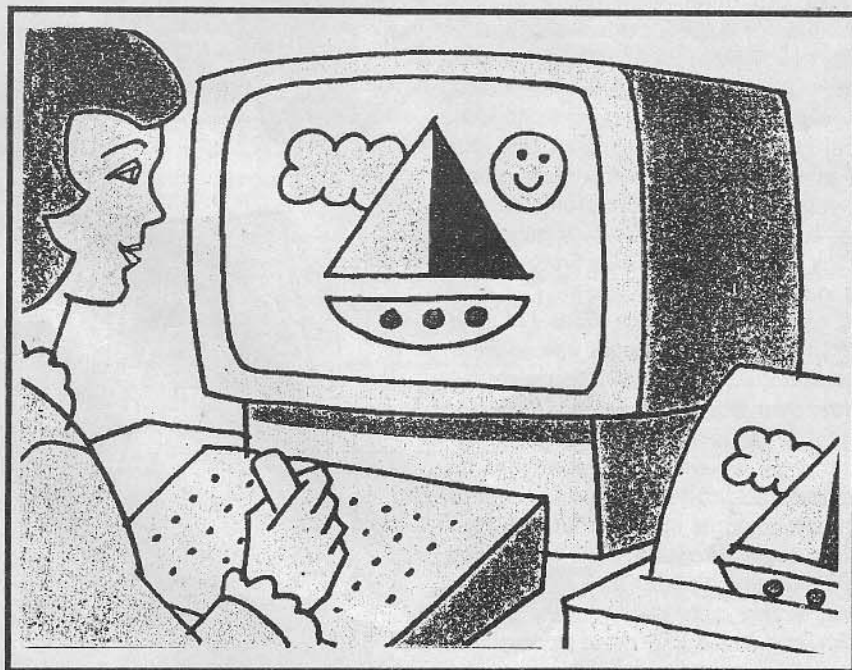
the *Print'n Wear* sheet to your tractor feed paper and it'll pull through OK.

I feel that the best use of *Print'n Wear* is in making full-colour transfers, which you can do quite easily by first printing the design (in outline only, no shading) with a black ribbon. You then colour in the design with oil-based crayons and when you iron the transfer on, the colour transfers right along with it.

As *Print'n Wear* is an American product I wasn't sure if the right type of crayons would be available here, so I checked with Penfold's Stationery Supplies in Sydney, where Rosalind Jack in their Art Supply department in the Pitt Street store was most helpful. She cross-checked the brand-names given (Sanford, Craypas, Weber) and suggested that a local equivalent would be Pentel's Dyeing Pastel crayons which are recommended for use in ironing on of T-shirt designs etc.

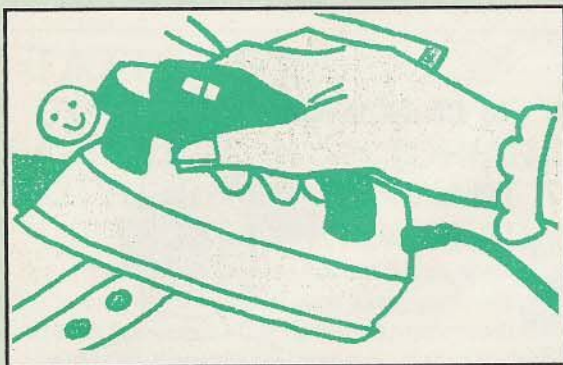
I checked the crayon idea out with Computer View, who said they'd raided the kids' toybox for just any old crayons as a try-out and it had worked out for them anyway! Their feeling is that as *Print'n Wear* is a plasticised type of transfer paper, it would appear that the colour design is first melted with the heat of the iron, then sandwiched between the thin plastic film and the garment surface.

This plastic film does add a slight extra thickness to the fabric and also darkens its colour slightly in the non-shaded





## SOFTWARE REVIEW



areas of the transfer, but if you make a full-colour transfer you'd never notice it. Also, before ironing the transfer on, you trim the outline of the design with scissors so that there's no plastic film outside of the design to be transferred to the garment. If you follow the instructions (and all this is covered) you really can't go wrong.

My stored design was a koala picture and I did a straight printout, complete with lots of heavy shading onto a piece of scrap fabric from my wife's sewing room. It was the first run on a new black ribbon and I got a fair bit of smudging of the design on the *Print'n Wear* paper, which of course transferred straight onto the fabric.

It's always seemed like a good idea to have a trial run before plunging straight into production so to speak, and this time it saved me from adding to my collection of 'working round the house T-shirts'. It also showed me that I'd have been better following the maker's suggestions to do a colour transfer, and as I said before, it is better if the printout is done in outline only and then coloured in before ironing.

You can use any of your printer/graphics utilities to make your own design and any of the utilities that offer printouts are suitable. In alphabetical order, and with no particular preference: *Blazing Paddles*, *Doodle*, *Flexidraw*, *Geos*, *Garfield*, *Koala Painter*, *Print Shop*, *Printmaster* and many others will all allow you to be creative and print your efforts to paper (and therefore to *Print'n Wear*).

Some of the art programs mentioned will allow you to put text onto your design, others are available that manipulate graphics in various ways. *Graphics Expander*, an enhancement program for the

*Print Shop*, has over 300 graphics which you can use as they are or edit them to suit, and it includes the facility to add text. *Billboard Maker*, *Icon Factory* and *Photo Finish* comprise a suite of graphics manipulation utilities for enlarging, flipping, converting formats, and improving printouts by smoothing the curved lines.

All of this means that there's wonderful scope for designing and printing your own artwork and *Print'n Wear* lets you wear the result!

You do need, however, to be able to 'flip' or 'mirror' the image before printing it to *Print'n Wear* so that it comes out the right way round. I used the *Cockroach Graphics Pirate* (now called the *Graphics Utility*) for both flipping and printing the designs and had no trouble at all.

If you had a video-digitiser you could reproduce photographs, pictures and any other objects you cared to point your video camera at and print them straight onto *Print'n Wear* for transferring. I believe there'll be an announcement in the next few weeks of an inexpensive Australian made video digitiser to hook up to a video camera and your 64 to do all of this, so watch our computer press for details, as they say.

A really great idea suggested by the guys at Computer View is for built-in place mats on a table cloth. Being plasticised, the *Print'n Wear* transfer offers good resistance to stains and spills and it should be a fairly easy thing to do individual graphics for Mum, Dad and the rest of the family. The transfers wash OK, just follow the laundering instructions, so the table cloth would give long service. This seems like a very useful idea to me.

If you have any other ideas I'm sure that Computer View would like to hear about them, so drop a line if you wish.

My own suggestion for a use for *Print'n Wear* is for team emblems on sports bags. It seems like a good idea for a football/cricket/ten pin bowling team or whatever, to come up with their own logo design, then decorate their gear-bags with it in team colours. Once in place the transfer seems quite strong, being a plastic film, and would look great done on the

team's bags!

As an artist my ability is very limited but I know that there are a lot of computer users out there who make fantastic art designs of their own so, if you're one of them you might be interested in trying out a pack of *Print'n Wear* yourself.

It comes in Quarto size (just like your 66 line printer paper) and a pack of 4 sheets costs around \$19.95, a ten-pack around \$44.95. Your favorite computer shop may have it as it is distributed Australia-wide and those prices are a guide to what you'd expect to pay. It's not cheap, but it is a good way to make yourself a highly individual garment or whatever and there's certainly a lot of satisfaction to be had in doing it yourself.

*Print'n Wear* is distributed in Australia by Roca Distributions, PO Box 342, Booval, Queensland 4304. Phone: (07) 816-1066. Fax: (07) 816 1221





***Fastest growing Commodore centre in Australia!***  
***Why? . . . Because we offer unmatched customer service -***  
***with full technical backup.***

**Full Range of  
Popular Commodore  
& Compatible  
Printers In stock:**  
 Olivetti, Citizen,  
 Commodore, Oki and  
 Epson

**\*\* SPECIAL \*\*  
AMIGA!**

**Insider 1 MEG  
internal expansion  
with 10 year backup  
clock.  
\$759 Fitted!**

**Call for details on our  
special AMIGA packs ...  
Tailored to suit you.**



**\* SPECIAL \*  
Available Now!**

**\*Computerscope Hornsby's own Public domain (over 130 disks!)  
and retail/software catalogue disk. Only \$6.00**

**We carry over 180 AMIGA titles, please call and  
compare our prices to city prices.**

**New Releases in Stock!**

- |                    |                |                                |
|--------------------|----------------|--------------------------------|
| * Hollywood Poker  | * Roadwar 2000 | * 20 Meg Hard Drives           |
| * Guild of Thieves | * Alien Fires  | * Scsi Interfaces              |
| * Swoope           | * Bureaucracy  | * Australian Produced Software |
| * Money Mentor     | * Digiview II  |                                |

- \* Always more than 800 software titles in stock.
- \* Also large range of Commodore/AMIGA books and magazines available.
- \* New releases for C64.
- \* Moebius
- \* Bombjack 2
- \* Auto Duel
- \* Spy vs Spy III
- \* Nemesis
- \* Famous World Class Leaderboard
- \* Road to Moscow
- \* Bureaucracy
- \* Ultima I
- \* The Detective
- \* World Tour Golf
- \* Nosferatu
- \* Nice Modem II & III
- \* Cartridge Expansion
- \* User Port Expansion
- \* Fast Change Cartridge
- \* Adventure - Hint Books
- \* Full Range of GEOS Accessories

**MICRO ACCESSORIES NSW DEALER**

**IN  
STOCK  
NOW!**

- |                                |                               |
|--------------------------------|-------------------------------|
| * Dolphin DOS                  | * Quickdisc + Mark II         |
| * Slimline 64 Replacement Case | * Freeze Frame Utilities Disc |
| * Freeze Frame Mark III B      | * Disc Disector V5.0          |
| * Graphics Utility Cartridge   | * Dolphin Copy                |

**\* FREE  
Mail Order Catalog.**

**Order yours now!  
Send S.A.E.  
(Business type please.)**

**COMPUTERSCOPE**

**477 6886 - HORNSBY - 477 7098**



**Authorized Commodore Dealer and Educational Centre**

**Address: Shop 35F Hunter St, Westfield Shopping Town, Hornsby, NSW 2077.  
2 Doors Down from McDonalds.**



## Hackers Hotline

\* `LOAD"$$",8`: Loads the disk header and blocks free message only.  
`LOAD"$*=P",8`: Loads directory with PRG files only.  
`LOAD"$*=S",8`: Loads directory with SEQ files, and so on.

\* Splat files (eg \*PRG) are best removed by first validating the disk, and NOT by scratching the files, as indicated in the April issue.

\* Did you know that opening a channel to device #2 clears all variables? Also, a GET statement will turn off any CMD commands currently operating — so watch out.

\* If you're relatively young, and are still learning about trigonometry, you'll want to know that a '64 doesn't accept degrees. You need to use radians instead. To convert degrees into radians, use:  
`RADIANS = DEGREES/180*TT`

\* **EASYSRIPT**: Ever wanted to include a left arrow in your document? Control 7 should do the trick.

\* There is a small bug in the Block Allocate (B-A) command. If you try to allocate a block that has been previously allocated, the DOS allocates the entire track.

\* **RENUMBER** on the C128 works OK, although you'll have to remember that it will ignore any numbered LIST commands inside a program, leaving the numbers the same (and therefore generally wrong and useless.) Also on the 128, if you hold down the Commodore (C=) key during any output operation (listing, printing etc), this has the same effect as holding down the CTRL key on the '64.

\* If you've ever seen a b, and have been totally stumped as to its meaning; well, its simply an indication of a SPACE (b for blank.)

\* To use the undocumented **APPEND** command for SEQuential files, use: `OPEN 2,8,2 "0:Filename,S,A"`

\* Normally, when you reset your computer the BASIC program is snuffed out. But now, thanks to Stuart Elflett, you can recover your program if you need or want to. Simply type:  
`POKE 2050,1:SYS 42291:POKE 46, PEEK (35):POKE 45, PEEK (781)`  
 And hit Return. Try it — it really works!

\* To quickly **RUN** a program, hold down slash (/), then press **SHIFT-SPACE**.

\* `OPEN 15,8,15, "UJ" : CLOSE15` should stop that annoying "DRIVE NOT READY" message.

Try saving a disk file as follows:  
`SAVE"filename(max. 12 letters) [Shift-Space] [C= D] [C= D]1",8,1`  
 The Commodore-D's will add commas to the directory, so you don't have to cursor right and type ",8,1" all the time.

If you've got anything to contribute or point out, write to:  
 John Eden  
 C/-P.O.,  
 Kincumber,  
 N.S.W.,2250

This program has the same effect as the BASIC program on page 110 of the Programmer's Reference Guide, except that this copies all 255 characters into RAM (instead of only 64), in just a fraction of a second. After this subroutine is used, memory locations after 12288 can be poked to create User Defined Graphics in the usual way.

0 REM UDG'S BY JOHN EDEN

900 FORI=OTO35:READA:POKE49152+I,A:C=C+A:NEXT

905 IFC<6490THENPRINT"ERROR. CHECK DATA STATEMENTS. ":LIST930—

910 POKE52,48:POKE56,48:CLR

915 POKE56334,PEEK(56334)AND254:POKE1,PEEK(1)AND251

920 SYS49152:POKE1,PEEK(1)OR4:POKE56334,PEEK(56334)OR1

925 POKE53272, (PEEK(53272)AND240)+12

930 DATA160,0,169,0,133,251,133,253,169,208,133,252,169,48,133,254,177,251

935 DATA145,253,230,252,230,254,166,252,224,216,208,242,200,192,0,208,229,96

940 PRINT"USER GRAPHICS FUNCTIONING."



# AMIGA

## TODAY

### **Premier Issue**

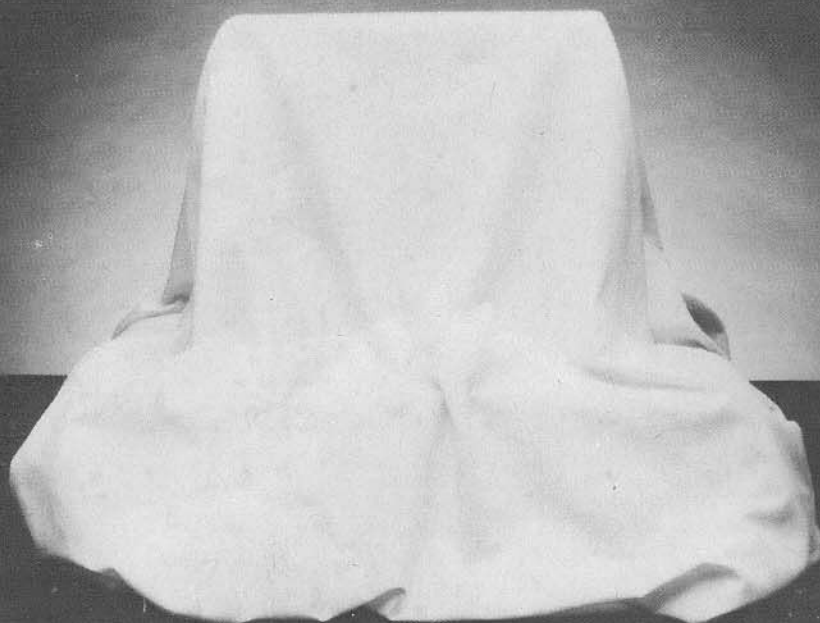
**News, Reviews, Hints and Tips**

**Buying A Hard Disk**

**Reviews: Karate Kid II, Deluxe Video 1.2**

**Preview: Diga! Communications Package**





# THE WRAPS ARE ABOUT TO COME OFF THE HOME COMPUTER OF THE DECADE

A decade in the computer industry is like a century in any other industry, and conventional PC technology has been overtaken, not by product improvements, but by more advanced technology.

And that new technology has a name: Amiga.

Soon, all the advanced features of the Amiga will be available to the computer buff for less than \$1000 in the Amiga 500.

Here are the features:

- 512K usable RAM for increased productivity.
- Internally expandable to 1 Megabyte for advanced applications.
- Superior GRAPHICS, SOUND & ANIMATION capabilities.
- Multi-tasking for running different applications simultaneously.
- Palette of 4096 colours.
- 4 Channel stereo sound.
- Music and voice synthesiser built-in.
- Large range of software available (over 500 commercially released packages).
- Compatible with all commercially released AMIGA 1000 software.



**ARE YOU KEEPING UP WITH THE COMMODORE AMIGA 500?**



## Directory of Advertisers

Acme Software	13
Artscape	14
Bruining Headlam	7
Commodore	IFC, IBC
Computer View	14
Diskworks Pty Ltd	3
High Technology	6
Megadisc Digital Publishing	14
Multisoft	11, 16
OziSoft	OBC
Sydney United Computers	9
United Computers, Queensland	8

Special thanks to **Graham Whittle** for our *Amiga Today* cover drawn on *Deluxe Paint II*. He has just released his first Artscape disk for the Amiga

### Amiga Today

Top Rear, 4 Carrington Road,  
Randwick, NSW 2031  
(02) 398 5111

### Published by:

Saturday Magazine Pty Ltd.

### Editor:

Andrew Farrell

### Publisher:

Gareth Powell

### Advertising:

Ken Longshaw

(02) 398 5111

### Production:

Brenda Powell

### Layout :

Amanda Selden

### Subscriptions & Back Issues:

Tristan Mason

(02) 398 5111

### Distribution:

Selected dealers  
and as part of *Australian Commodore Review*

### Printed By:

Ian Liddell Pty Ltd

# Contents

## 2. News, Reviews, Hints and Tips

- Diga!... the latest in Amiga telecommunications
- BBSs of interest to Amiga users
- Desktop Publishing
- Curing the single-drive blues
- Local Talent

## 6. High Technology is the Amiga Centre in Melbourne

- High Tech is dedicated to supporting the Amiga

## 7. Flying Safely with Bruining Headlam, WA

- A reputation for supporting clients

## 8. United Computers, Queensland's Amiga Specialist

- Support with hardware, software, repairs and disk libraries

## 9. What's Happening at Sydney United

- NSW's largest Commodore dealer is an ever expanding company

## 10. Hard Alternatives - Part I

- A buyer's guide to hard disks for the Amiga

## 12. Deluxe Video Version 1.2

- this new upgrade has been rewritten from the ground up

## 15. Karate Kid II

- Stunning animation, zapping baddies and catching flies with chopsticks

# Editorial

Welcome to the premier issue of *Amiga Today*. If you own an Amiga, or are thinking of purchasing one, this is the magazine for you. It will be published on a monthly basis, inserted into the *Australian Commodore and Amiga Review*, and also available separately through selected dealers.

In coming issues you can expect to see a range of articles covering all the various facets of the Amiga that we can possibly find good writers to put words to. We welcome contributions from readers, especially those which explain how to do something. This will not be an exceptionally technical type of publication, although there will be the occasional article delving into the Amiga's more complex features.

The entire range of Amigas is now available, although we still await the bridge board for the 2000. This little addition provides the necessary PC compatibility many require. New software and memory upgrades are becoming readily available.

Next month we will be looking at some of the various upgrades which are possible, including external drives, hard disks, clock/calendars and RAM expansion. Until then, enjoy.

**Andrew Farrell**



# News, Reviews, Hints and Tips

by Tim Strachan

## DIGAL! ... THE LATEST IN AMIGA TELECOMMUNICATIONS

THE ultimate telecommunications program for the Amiga has arrived.

*Digal!* from Aegis Development is a package that should satisfy the most demanding user, because it's got all the features you could imagine and an interface which makes using it a pleasure.

To date, there have been many different communications programs for the Amiga, available both commercially and on the Public Domain. In fact the PD offerings have been as good as, if not better than, the commercial ones. Such programs as Dave Wecker's VT100, ATERM7.3, WOMBAT and COMMS have been available for a while in constantly improved versions, and they work well, are easy to use, and each has its special features which will satisfy the needs of most users.

So what sets *Digal!* apart? Here are some of its features:

- \* All the usual communications protocols are handled - ASCII, XModem, XModem with CRC (Cyclic Redundancy Check, ie, checks for all errors), CompuServe-B and Kermit along with a few others.

- \* Four Terminal emulations are possible - TTY, ANSI, TEKTRONIX 4010/14 and DEC VT100 or VT52, ie, everything you'd need. The Tektronix allows you to send or receive graphics files.

- \* *Digal!*'s own TEKODRAW program which allows you to load Tektronix graphics into Aegis' CAD programs.

- \* *Digal!*'s DoubleTalk module allows you to chat with another *Digal!* owner while sending or receiving files.

- \* A REMOTE feature which allows a caller to operate your computer under your conditions - this is essentially a BBS facility and is very useful for people working together at a distance.

- \* Fully programmable in the sense of customising your log-on procedures to particular databases or BBS's and for saving special

configurations that you set up.

- \* Up to 50 Macro keys to allow you to produce a string of text with a single keystroke, a very useful feature for producing often repeated strings of characters.

- \* All sorts of other adjustable settings allow you to use high-res screens, with "overscan" if required to expand the screen size even more; colours can be changed at any time, as can the cursor and screen flashes or beeps.

- \* All the existing baud rates (rates at which the information is sent down the phone line) are catered for, and more - there is even a MIDI setting (31,250 bps) which can best be used for transferring data between two systems directly linked to each other through their serial ports. Very fast.

- \* There are facilities too for importing and exporting text to and from a text editor, specifically TxED, an excellent text editor for the Amiga. All you have to do is select a menu item and the rest is done for you. Likewise there is a BUFFER facility, which allows you to capture data into a buffer (which you can make as large as you like) while on-line - when you've finished you can transfer this to disk for later perusal and editing.

The documentation that comes with the package is very well produced - clear instructions and explanations are given, along with plenty of graphics to make things clear. The basics of telecommunications are explained, so that the beginner can get a quick mastery of the whole subject with minimum pain. And there can be pain, due to the many emulations and standards that exist in this area.

The actual "interface" to the user is also well designed - as you'd expect, full use is made of the mouse-menu intuition facilities, there are many keyboard alternatives, messages pop up briefly onto the screen telling you what you've just done or if anything is wrong, and there are many adjustable settings to allow you to configure the program to suit you exactly.

Being an American product, there is no capability for the Viatel protocol/baud rate (1200/75), and this is about the only drawback I can see. However, for that specific type of communication, you can always use a Viatel dedicated package, such as Supertex, and use *Digal!* for all other purposes.

All things considered, I don't think you'll do better than this one, whether you're a veteran of the phone lines or a beginner. If you can't afford it, or have limited uses for your communications software you'll find what you need in the Public Domain or amongst the various commercial programs. A note of warning - this program makes telecommunicating so easy that you might find your phone bill mounting a bit too rapidly for your pocket, so beware.

## BBS'S OF INTEREST TO AMIGA USERS

While on the subject of telecommunications, here's a list of some of the BBS's available over your phone line which deal specifically or partially with the Amiga. All, as far as I know, support 300 and 1200 baud rates and are on-line all day. If anyone knows of any others, please write to this magazine or ring me on (02) 9593692 so that I can revise the list.

### SYDNEY AREA

#### \* CLUB AMIGA

(02) 521 6338

Sysop: Ross Kellaway

Online 24 hrs; run entirely for Amigas on an Amiga; has a section for MEGADISC uploads and downloads; very active and well-run Board.

#### \* AMIGA MAN BBS

(047) 588 006

Sysop: Ron Carruthers

Online 24 hrs; run for Amigas on an Amiga; plenty of good information.

#### \* PARAGON BBS

(02) 597 7007

Sysop: Jennifer Allen

Has a section on Amiga.

#### \* C USERS GROUP BBS

(02)560 3607

Sysop: Rick Polito

Very good for anyone interested in C programming. Has Amiga section, including National Amiga Conference.

### CANBERRA

#### \* ACT AMIGA BBS

(062) 59 1137

### BRISBANE

#### \* COMMODORE CLUB BBS

(07) 395 6725

Sysop: Colin Camfield

#### \* Softech Fido

(07) 203 6864

### MELBOURNE

#### \* DOWN UNDER SOFTWARE

BBS (03) 429 5819/429 8079

Sysop: Greg Hudson

Seems to be a very active board.

#### \* AMIGA LINK BBS

(03) 992 3918

### PERTH

#### \* BH ADAWA BBS

(09) 381 3206

Baud rates up to 1200, and Auto Scan.

#### \* LIGHTNING BBS

(09) 275 7900

Sysop: Simon Blears

## DESKTOP PUBLISHING UPDATE

Readers of the last Amiga Column may remember that much space was devoted to Desktop Publishing and Word Processing on the Amiga, and in particular to *Pagesetter* and *Scribble!v2.0*, a powerful combination on any computer. Mention was also made of the *Laser Script* companion program for *Pagesetter*, also by *Gold Disk*, which I'll describe in a little more detail.

The whole point of *Laser Script* is to add the capabilities of the *Postscript* page manipulation language to the page formatting talents of *Pagesetter*. *Postscript* has become an industry standard in a fairly short time, due to its portability across most systems and energetic marketing by Adobe, who developed it. It is a programming language in itself, and its function is to describe in detail every aspect of the finished page fonts, font sizes, position, borders, graphics, angling, etc - so



# DISKWORKS PTY LTD


3/11A Park Road,  
St. Leonards, 2065  
Ph: (02) 436 2976

FOR THE

## MONTHLY MAGAZINE ON A DISK

For the **AMIGA** MONTHLY MAGAZINE ON A DISK **AUG'87** \$17.95

### JUMPDISK



"Lou, hold page one!  
JUMPDISK is here!"

This issue includes a spreadsheet program, utilities, games, science fiction, art, tutorials, tips, articles, reviews, and some surprises! What, Lou? I got no time to fill you in. See the reverse for the full story. And say, Lou, did you know

Amiga is a registered trademark of Commodore International Ltd. All other names are the property of their owners.

PUBLISHED IN U.S.A.

Distributed Under

LicenseBy DISKWORKS P/L

\*MINIMUM OF 10 READY TO RUN PROGRAMS PER MONTH

\*A VARIETY OF ARTICLES, TIPS, UTILITIES

\*LATEST INFORMATION ON NEW AMIGA PRODUCTS

\*AVAILABLE HERE THE SAME TIME IT IS RELEASED IN THE U.S.A.

JUNE, JULY, AUGUST

issues on Sale now

\$17.95 each

BECOME A SUBSCRIBER AND SAVE

3 Months \$39.00

6 Months \$75.00

12 Months \$144.00

BACK ISSUES:

August 86 — May 87 \$13.00

**SPECIAL OFFER!**

**APRIL JUMPDISK**

includes superb Blackjack Game

**\$5.00** includes P. & P.

## AMIGA PUBLIC DOMAIN

SPECIAL!

AS FEATURED IN

JUNE AND JULY

**JUMPDISK**

Fish Vols. 1-74

Amicus 1-16

**\$5.00 per disk**

**Yes!** THIS PRICE INCLUDES 3.5" DISKETTE

Add \$2.00 p. & p. regardless of quantity

(See June and July Jumpdisk for detailed Public Domain list)

## 3.5" D.S. DISKETTES

NASHUA	\$39.50 a box	1—9 boxes
	\$37.50 a box	10+ boxes
BASF	\$47.50 a box	1—9 boxes
	\$43.50 a box	10+ boxes

## 3.5" EXTERNAL DISK DRIVES FOR AMIGA

We have overcome current shortages. Phone for price

### REMEMBER

JUMPDISK FEATURES ORIGINAL PAID AMIGA SOFTWARE  
CONTRIBUTORS WELCOME!

For Your

**AMIGA** 1000

Last month we brought you **HUGE SAVINGS** on  
**THE INSIDER —**

1 meg internal expansion RAM memory with Real Time Clock

This month we also have:

1.5 meg internal expansion RAM memory with Real Time Clock

2 meg eternal expansion RAM memory

20 meg hard disk

40 meg hard disk

Call us for Details

**WHY WAIT!!**

AMIGA WORLD

CURRENT ISSUES

AMAZING COMPUTER

**\$9.50each**

ALL PRICES SUBJECT TO CHANGE



that any laser printer with PostScript capability can read it and set up the page as required.

Now there are some people who can and do actually program in this language, but you might have several pages of description for one page of output, and we average users are not about to get involved in that sort of endeavour. So the trend has been to pass a document from a DTP program such as *PageSetter* through another which "wraps" a PostScript "cocoon" around the document for handling by the laser printer. Seems nice and simple, and so it is.

The basic procedure is to import the document into LaserScript's "Standard Print" section, adjust your page size with the mouse, choose the number of pages and copies required, and select the printing option. If you're more adventurous, you can go to the "Custom Page Design Studio", where you can manipulate one or more pages separately or together for output to the printer. That is, you can take, say, three pages from any *PageSetter* documents, rotate them, shrink them, put borders round them, make them "transparent" or "opaque", and so forth to get all kinds of effects, for presentation, educational or other purposes. It's a matter of experimenting, as usual.

The results I got from an Apple LaserWriter were very sharp - the whites were white and the blacks were black, there were no jaggies at all, and the grey scale backgrounds were just as they should be. In fact, it was good enough for "camera-ready" copy, for a magazine or whatever purpose you might have, be it fliers, brochures or newsletters.

Any Postscript-compatible laser printer should work similarly, provided that the type faces loaded into it are the same as those

## pTIMES 48 : Laser Script Fonts with POSTSCRIPT

pTIMES 24 : the previous done with MAKEFONT on 24

pTIMES 16 : 123456789; IN BOLDITALICSSHADOW

pTIMES 12 in shadow and in bold and with an UNDERLINE

pTIMES 8, quite small in bold, with OUTLINE on and UNDERLINE on and a shadow, still 123456789

pcOURIER 24 : 1234567890; in bold and in SHADOW

pcOURIER 16 !@#\$%^&\*()\_+|=  
1{[];':",./<>? PUNCTUATION! in  
bold

pcOURIER 12 : Trying BOLD ITALIC OUTLINE 123456789

provided on the LaserScript disc. The first version of this has four different type faces: Helvetica, Times, Courier and Symbol, each in four font sizes, 8, 12, 16, 24. This is somewhat limited, especially for headings, but Gold Disk has a number of others on the way, which should be here by the time you read this.

It is worth keeping in mind when setting up a system that your software fonts must correspond with those loaded into the laser printer. Most printers have extra cartridges of fonts which can be loaded into the printer - for example, the Hewlett-Packard Series II provides extra fonts at prices from \$300 to \$500. The LaserWriter already contains about 11 of the most popular typefaces, and so handled the LaserScript fonts automatically.

It should be remembered that the Amiga "system" fonts, such as Topaz, Diamond, and so on, can not take advantage of PostScript, as they lack the necessary ".metric" file - so if they are used, they will not have the 300 dots per inch resolution of the Postscript

fonts. The accompanying illustration shows most of the range of fonts available, and also shows how *Page-Setter* enables any text to be given such effects as Bold, Italic, Shadow, Outline, and Underline, which is done by simple keystrokes embedded before and after the text which you want to affect.

If you want to print out graphics, they will be output as "bitmapped" graphics at present, because the software has not been written yet to wrap a PostScript shell around graphics done on *Page-*

*Setter*. However, I'm sure that this will be available in the near future, just as the Adobe *Illustrator* already exists for this purpose on the Mac.

The only unfortunate aspect of all this is the prices - your Amiga will be a minor part of the cost of a full DeskTop Publishing system, because a good laser printer with a number of fonts and sufficient internal memory (RAM) for full-page printing will cost. A LaserWriter costs approximately \$12000 fully set up, and a Hewlett-Packard Series II about \$10000 with 2 MEG of RAM, and a number of fonts.

One alternative is to go to a Bureau which does your printing for you, but you may have to take your Amiga with you, as few currently have an Amiga installed. This situation will undoubtedly change fairly soon, but in the meantime you will have to be resourceful, i.e., get a friend to buy one!

### LOCAL TALENT

For a while after the Australian release of the Amiga, it seemed

that nothing much of an original nature was being developed on the Amiga here in Oz. There was (and is) an increasing cascade of programs, art, magazines, disk magazines, and the like from the States, and to a lesser extent from Europe, but all was quiet on the antipodean front. But Amiga users have started to come to terms with the possibilities of their machines and products are beginning to emerge.

One noteworthy product is *ArtDisk Volume 1* by Artscape Studios in Sydney. This is full of computer art done on *Deluxe Paint* and *Aegis Images*, and shows off what can be done with the Amiga's graphics capabilities. Apart from good viewing, it is full of good ideas and techniques you can use yourself, and of course you can use parts as "brushes" or windows in your own creations. Colour-cycling possibilities are used to advantage, and the disk is set up with a slideshow, as well as for individual viewing via icon selection. For details, see the end of the column.

(There are also art disks of various kinds available from overseas, notably by Ken Costello, who uses the capabilities of *Deluxe Paint II* to very good effect. And Aegis and Electronic Arts, who are responsible for the two most popular painting programs, have both issued disks full of graphics and useful utilities.)

Other local products soon to be released include a **memory expansion unit** which has been tested satisfactorily - it will give an extra 512k of RAM, a clock-calendar, a DMA controller for very rapid access, and a SCSI port which will allow the use of most hard disks.

A local hardware wiz is also constructing **disk drives**, both 3.5" and 5.25", for the Amiga. Apart from the very competitive pricing, the 5.25" drive will allow you to store all your Amiga software on cheaper 5.25" disks, and will not require special configuring. Watch this space or see MEGA-DISC 3 for further details about the availability of these products.

Soon to be available is a **Gen-Lock package** which from all reports overcomes the problems inherent in using American-based



video products on Australian hardware, ie, different frequencies and monitor standards (PAL v NTSC).

And a group in Melbourne have solved the problem of **transferring PostScript output** from the Amiga to other computers, such as the Mac and the IBM, which means that when you want laser typesetting or laser printing done by a bureau, you'll only need to take your disk, not your computer. The same group is working on achieving **line and colour separations** on the Amiga, which will finally allow full bypassing of all the traditional printing operations, and should create quite a stir throughout the printing industry.

Available from a company called MultiSoft in Western Australia are a couple of Amiga-specific products: a **hard disk drive** of 20 MEG and an **accounting package** of some complexity.

In South Australia, two companies called Proton Microelectronics and HC Software are producing hardware and software, including a **RAM expansion board** and another **accounting package**. Neriki in Sydney have a pre-release version of an **interface** for the Polaroid Palette.

I am told that Bruining-Headlam in Western Australia is actively producing useful additions to the Amiga, namely: a **Via-tel software package** for the Amiga, called *Vtel* (\$80); a **Printer Driver** which handles colour printing on a number of dot-matrix printers (more than 9 pins), suitable for such printers as the NEC-CP6, CP7, Epson LQ 2500, etc; a **MIDI Interface** for the Amiga (\$90); and a kit to convert NTSC to PAL.

Further details of these and other products will be available here in future issues. If there are any local developers with products of interest to the Amiga community, please contact me here and guarantee that people get to know about them.

## CURING THE SINGLE-DRIVE BLUES

The best way to cure these blues is to go out and buy a second disk drive. The Amiga's Operating System is a powerful brute and gets happier the more resour-

es it's got to play with, such as extra drives, more internal memory, hard disks, and all the many peripherals that are proliferating for this flash machine. It is certainly crippled when operating on a single drive, since it's capable of handling several external drives, floppy and hard, RAM disks, and soon CD-ROMS. But if you have to stick with a single drive for a while, then there are some simple ways around the problem without becoming an expert in AmigaDOS.

## DIRECTORY UTILITIES

For want of a better term, vague though it is, these DU's are appearing rapidly in the Public Domain and commercially, because they are so useful and simple.

The basic idea is a small program (23 kB up to about 100) which has the simplicity of the WorkBench but the power of the CLI - almost. Double-clicking on its icon brings up a screen which usually has half devoted to File listings and the other half to "Command buttons". All you do is click on a file which you want to manipulate (copy, rename, move, read, print, etc) and then the appropriate button. The current directory appears in the listing window as the "source", and there is a small requestor into which you can type the "destination" such as mydisk:myfile, if it's necessary for the particular command.

For example, to print out a file, you'd simply click on the filename in the directory listing (it will be highlighted), and then click on the PRINT button. That's all you need to do to get a printout. Likewise READ, or SHOW (to see a graphic). Moving through the directories of any disk simply requires clicking on any sub-directory, then on GETDIR and the listing of the new sub-directory appears in the listing window. You get the idea. It requires no typing skills, and is quick and powerful.

There is a number of these Utilities available, but the most useful one for single drive users is the one called *DUIII*, which has the advantage of being completely "portable" - ie, it is a self-contained program and can be dragged via its icon to any disk without any other baggage. (I say this because some of the more so-

phisticated ones require a number of other programs to be transferred with it and placed in the c: directory of your disk.) This is a Public Domain program and can be downloaded from Bulletin Boards round the country, or found in a Users Group, or found on the second issue of *MegaDisc*, with explanatory file (see ad this issue).

The beauty of it is that you can put it on your WorkBench, double-click on it, and then remove your WorkBench and explore other disks. It's like having a small RAM disk with all the commands you need. The only thing it won't do is to run a program - other utilities do this, but they access the CLI RUN command to do so, which defeats the purpose somewhat.

Another similar program, available commercially, is called *CLI-Mate*, and it costs you money to do what *DUIII* will do for nothing. It does the job, but is not so intuitive as *DUIII*. However I'm sure some will like it.

## USING A CLI SHELL

For those who don't mind typing and are reasonably fluent with the CLI, there are various "shells", ie, programs which "wrap around" the brutal power of the CLI, and tame it and make it easier to use. These range from simple to very sophisticated, cheap to expensive.

One of the best I've come across is *MYCLI2.1*, which can be edited into your startup-sequence to start with boot-up. The virtue of this one is that all the most used CLI commands are loaded with the program, so that you can take out your Workbench and continue as if you had two drives. The program also keeps a "history" of your most recent commands which you can get back with the arrow-up key (saves typing), and you can edit the command lines like a word processor. This program appeared on *CASA DISK No. 2* - get it from *MegaDisc* or your User Group.

## PUTTING CLI COMMANDS IN RAM

If you can't get your hands on either of the two programs above, bite the bullet and do it yourself. Double-click on the CLI icon in the SYSTEM drawer of your Work-

bench (having made sure that you "turned on" the CLI in Preferences) and the CLI screen will appear.

Enter the following commands:

> copy c:/dir to ram:

> copy c:/cd to ram:

> copy c:/type to ram:

> copy c:/run to ram:

> copy c/xxxx to ram:

where xxxx is any other command you may use. Now if, for example, you want to look at a disk called *Fish74*, remove the Workbench, place *Fish74* in the drive, and enter > ram:cd Fish74: which changes the current directory to the "root" directory of *Fish74*.

To get a listing of what's on the disk, enter > ram:dir or

> ram:dir opt a

for a full listing, including the contents of all sub-directories.

To change to a subdirectory called "Less", enter

> ram:cd less then > ram:dir

and you might see a file called "Less.man", ie, the manual for Less, so to read it, enter

> ram:type less.man or to print it out on paper

> ram:type less.man to prt:

and so on. The basic idea is that once the commands are copied into RAM they can be used as above. Once you've got used to that you can write a special file called a Batch File which you can copy into your Startup-sequence to be executed each time you boot up. If there are any letters asking for more along these lines, I'll go into it more deeply next time. But one way or another, you should be able to sidestep some of the inconvenience of having only one drive.

## REFERENCES IN THIS COLUMN

1. Artscape Volume 1 \$49.95 at your dealer.
2. *Digital Telecommunications Package* Aegis Development \$200 (approx.) at your dealer.
3. *LaserScript for Pagesetter Gold Disk*, inc. \$69.95 at your dealer.
4. *MegaDisc Disk-Magazine* and Amiga Services See Advertisement this issue.
5. Proton MicroElectronics (08) 27703236.
6. Bruining-Headlam, WA (09) 381 2988
7. Multisoft See advert this issue



# High Technology is the Amiga Centre in Melbourne

HIGH Technology, nestled in the suburb of Brighton in Melbourne, is dedicated to supporting the Amiga. This support encompasses specialised service, training and carrying one of the largest ranges of software and accessories for the Amiga in the country.

Being the longest serving Commodore dealer, the staff at High Tech can draw on their wealth of experience, to give their customers the advice they need.

If you are looking at exploiting the graphics/video po-

tential of your Amiga, the staff at High Technology are worth talking to. The products they support include the following:

**DIGI-VIEW** - This video digitiser uses a video camera to capture images with spectacular colour and clarity. These images can then be used in data base programs, for education, or just blowing the minds of owners of lesser machines! High resolution cameras are also available.

**DIGI-PAINT** - Want to draw with all of Amiga's 4096

colours at one time? Then this soon to be released piece of software is just the ticket.

**COLOUR PRINTERS** - To get the most from your graphics presentations, colour printouts are essential, and High Tech can advise on the one most suited to your needs.

**GENLOCK** - For those into Video Production, Genlock allows you to overlay Amiga graphics and text over a video image. You can even do Chroma-Keying. Add Pro-

Video CGI and you have a professional video titling system.

**POLAROID PALLETTE** - Presentations will benefit from the professional touch of full colour graphic slides, produced with Amiga graphics and a Polaroid Pallette interface via IMPRINT.

High Technology also offers a mail and phone order service, with a free price list available on request. High Technology is at 290 Bay Street, Brighton, Victoria 3186

Phone (03) 596 6211.

## TOTAL AMIGA SUPPORT

THE

**AMIGA**™ CENTRE

500

1000

2000

SALES SOFTWARE ACCESSORIES SERVICE TRAINING

Give us A Call For Our Free Price List



290 BAY STREET, BRIGHTON,  
VICTORIA 3186 Phone (03) 596 6211



# Flying Safely with Bruining Headlam, WA

Imagine winning Lotto and deciding to go out and buy an aeroplane. You certainly won't find one at your nearest toy shop or Supermarket and if you've never flown before, it could be a bit tricky taking it out for a Sunday morning run. Most pilots will tell you that after you've done your training it's easy to leap into a plane and take off for a few hours joy-riding, but the initial training is crucial if you want to have a safe and happy time flying planes.

Whilst computers aren't any where as dangerous (unless you start poking fingers in power supplies) they're probably just as difficult for the first time user and unless the ground work is done properly, many hours of frustration can result in the person eventually selling his machine because he just doesn't know what to do or how to do it.

Just as you'd go to a professional aircraft dealer, you should consider going to a professional computer dealer with years of experience and a genuine interest in the products he's selling. Whilst not all states in Australia are fortunate to have such dealers, there are a few around and you eventually get to hear of them. Hopefully, this happens before you've purchased a system and not after, because it's not really fair to expect a businessman to look after you if you haven't supported him.

In W.A., Bruining Headlam Computers of Leederville have gained a reputation Australia wide for supporting their clients in a way which many are trying to copy.

"I guess that's because we started so many years ago (8

years). We remember the initial support we gave to our clients and we've continued the tradition" says Nick Bruining.

"I think that many of the current dealers saw a dollar in computers and leapt in without really considering what's required. There's a lot more to support than helping a client carry the boxes to the car."

Bruining Headlam have set up a number of unique systems for dealing with support. One of the most popular areas is their library service, in which they get hold of hundreds of programs, some of them Public Domain and offer a free copying service to their clients. There are more than 2000 such programs for 64 and 128 and more than 100 disks for the new Amiga. In addition, they have just set up a BBS for their Amiga clients which allows them to access this software and download from home.

Also provided is a regular Newsletter to their Amiga clients and this provides them with tricks and tips in using the Amiga.

Bruining Headlam also have a complete service facility on site, which means that clients who are having problems won't be referred to third parties for software or hardware advice.

The company is actively involved in areas of research and development. Many projects around Australia involve this company in some way. Internally, they have developed a PAL upgrade for NTSC Amiga owners along with many specialised interfaces for C4,128 applications.

As a natural extension of this,

the company has now established ties with a large number of international companies.

The company distributes mainly specialised hardware for the Amiga. This includes, The Alegra Memory boards, the CSA 10 way RS232 controller, the Liquid Light Impact Image recording system and other devices including a Frame Grabber for Pal devices.

With the Amiga already well established in the market place, Bruining Headlam see this line from Commodore as the real growth area. However, with more complex hardware such as this, the support aspect becomes all the more important.

"Whereas the 64 and 128 systems usually have the customer coming back once or twice for help, the Amiga customers will need more help. This works out to be about five times. We have already geared up for this and aren't having too many problems coping," said Mr. Bruining.

He also gave some examples of other dealers' knowledge of systems. In many cases they revolve around the fact that many people only know how to show off games on the Amiga. It is worth mentioning that in many cases owners of a computer have no idea of the capabilities simply because they haven't been shown.

Bruining Headlam are also very active in the Business sector of the market. For many months they were the largest dealers for Commodore PC's in Australia. This has now developed into a major source of follow up business for the company. They have moved into networking systems in a big

way since the introduction of the PC-40, an IBM AT compatible machine. So far, five sites are using networked systems. The largest of these is the ARM analytical laboratory which has more than 10 computers all sharing common data, printers and other peripherals.

Bruining Headlam have been dealing in Commodores alone for more than eight years now. In that time they have seen the coming and going of the PET series, and the VIC 20. Even today, they still carry software and spares for these systems and will continue to do so until these are no longer available. After that, they have already stockpiled scrap machines for parts. The company now employs 12 staff and almost always has a work experience person being shown the ropes in this highly dynamic industry.

The future is an area in which the company has some firm goals. However, like all good businesses they always adopt a cautious approach to any new endeavours. Many companies have gone flat out in one direction without looking at the consequence or the results of what they're doing. Nick remembers one dealer in Perth many years ago that told him the VIC and the 64 were just fads which would pass quickly. Unfortunately, the dealer did and eight and a half million 64's later the product is still selling well.

While the company may not be involved in aircraft sales, there are many dealers in Australia who envy their position up there in the clouds.

## BRUINING HEADLAM COMPUTERS

PERSONAL BUSINESS EDUCATION



# United Computers, Queensland's Amiga specialist

Queensland's UNITED COMPUTER STORES have grown to three centres in just over four years and are now this State's largest Commodore Specialist Group with the following locations:

**Brisbane:** United Computers

**Gold Coast:** Scarborough Fair Computer Centre

**Ipswich:** Computer View

In this time the UNITED GROUP have established themselves in the Education and Business Market and have specialised in the area of the small business, by looking after the unusual problems associated with the computerisation of the "one-man" operation up to the Corporate Sector.

The Amiga of course, has opened the door for many operations to become computerised, especially now with the latest arrival of the Amiga 2000 with its ability to run dual operating systems of MS-DOS and Amiga DOS. This has given business houses who already have MS-DOS computers the opportunity to have the power of Amiga as well as the compatibility of IBM-MS-DOS Computers.

The United Computers Group stores' latest venture is in the area of training with the establishment of training centres at each location. These very up-market centres train clients in the use of their computers with classes starting for the very beginner to some who would like to see how a computer can help their business. Others who already own a system are being trained to a greater understanding of their computer's capabilities. Classes also cover the Operating System on computers such as MS-DOS, the Amiga CLI and of course Commodore 64/128. They also have training in Word Processing, Spreadsheets and Databases for all three computers. Training is conducted by teachers with years of experience.

Carol Jones, one of the Directors, stated that it did not matter at what level someone wanted to start, they had a course for that person or company. "We have courses especially designed for secretaries, middle management and so on, as their businesses may be looking at using comput-

ers, in the near future, or are using them now and require a better understanding of their system. They normally find that the original solution the system was purchased for can be extended to include accounting functions etc."

John Jewell, Managing Director, said that a lot of people are using their computers but do not understand what happens when they format a disk or do back-ups etc. "This of course is very worrying and could lead to major problems for the business or operator."

The UNITED COMPUTER GROUP have, over the years, established Public Domain Software Libraries for all of their computers. For the Commodore 64/128 they have over 800 programs, mainly dealing with Education and Games. The Amiga also has many hundreds of programs in a specially kept library. The concept is a customer joins the library club for a once-only joining fee and can then have access to the disk as you would do with a book. Because it is Public Domain you can make a back up of the program, so

building up your own library of programs.

On a recent trip overseas, the Group purchased a huge MS-DOS Public Domain Library of over 200 Disks with hundreds of excellent programs. The programs cover Utilities, Word Processing, Text Editors, Communications, Graphics, Business Accounting, Personal & Investments, Spreadsheets, Database Management, Vertical Market, Religion, Games etc.

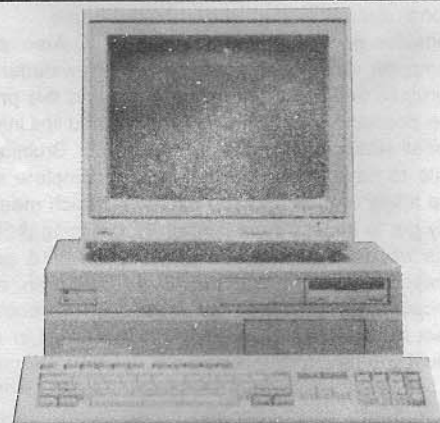
Once again, with this Public Domain Library you pay a nominal fee to join and you can use the library as often as you like. Many of the programs are of a commercial quality that would cost many hundreds of dollars if packaged and put on the showroom shelf. Most of them come with instructions.

Another area which is growing for us is the Mail Order Section. We try very hard to look after our country clients with fast response to their requests. We can look after all of their needs from hardware, software, repairs, and of course our libraries.

## FOR EVERYTHING

### AUTHORISED

Amiga Dealer  
PC Business Systems  
Education Dealer



— YOUR QUEENSLAND SPECIALIST —

## UNITED COMPUTER

- \*QLD's largest range of software
- \*All of the latest titles
- \*Full Range of Printers and Cables
- \*Quality disks at lowest prices
- \*Printer Paper—Labels—Desks
- \*Large range of Books

- \*Fast turn around service and repairs
- \*Mail orders welcome
- \*Now in stock A2000, A1000, A500
- \*Specialists in education
- \*United Computer stores carry the full range of Commodore products

Ipswich  
**COMPUTERVIEW**  
21 Brisbane Road  
Bundamba  
(07) 282 6233

Brisbane  
**UNITED COMPUTERS**  
991 Stanley Street  
East Brisbane  
(07) 393 0300

Gold Coast  
**SCARBOROUGH FAIR COMPUTER CENTRE**  
Scarborough Fair Shopping World  
South Port  
(075) 325 133



# What's Happening At Sydney United

SYDNEY United Computers, New South Wales largest Commodore Business Machine dealer, is an ever expanding company.

Originally a family business based in the Sydney northern suburb of Dee Why, they have now expanded to have a client base covering Australia. One thing that has never changed however, is the family influence still very much directing the company's growth. Bob Drew, a senior director of the company, is assisted by his son Shane, in sales, his daughter Kerry, in accounts and his wife Mary, in administration.

They also have a very dedicated sales crew and a technical and service department that is experienced, not only in the current Commodore Computer Range, but in the 8000, 4000 and 2000 series of computers that finished production some time ago.

When the decision was made to expand into the City, it was Bob's aim not to do so at the expense of the client base on the North Shore, so new premises were sought on the main road in the Dee Why Business District.

The expansion experienced by Sydney United Computers has been quite remarkable. Due to the incredible growth of the company, they have gone from employing three staff to over 14. The reason for their success is attributed to two areas:

- Because Sydney United Computers specialise in the Commodore range, Bob feels that Commodore users know they can go to a store and deal with sales staff who will not try and persuade them into an opposition brand that has a better profit margin.

- Sydney United Computers are committed to supplying a service to their customers. This is one reason they will not participate in heavy discounting of computers. Sydney United Computers know that if they were to discount, realistically they must withdraw something from the deal to make it profitable. The obvious thing to withhold is after sales service.

Most dealers who discount usually provide little or no service at all. Perhaps though, an option to overcome this is to sell support as an extra package. Although

not a new idea, it might become necessary to do so to counteract discounting.

Sydney United Computers City store has probably one of the largest ranges of software for the Amiga with over 200 titles, with the Dee Why store specialising in the Commodore C64, with a large range of \$9.99 software.

As Commodore only market one IBM PC printer, Sydney United Computers decided to sell and support OKI Microline and Star Micronics printers too. These companies were chosen because of the level of support they offer, not only to the user, but to the dealer base as well. In addition they offer the best value machines in the market place.

The fact that they are Microline dealers also gives them an edge over the majority of the opposition with the release of the new Commodore Printer Range including Laser Printers. The new range is in fact Microline Printers with a Commodore badge. Shane, the printer expert within the company, agrees with Commodore's choice. He believes them to be

the printer most suited to continuous commercial use.

Imagineering software is stocked in both stores, with the directors of Sydney United Computers supporting the 'anti-piracy' campaign being led by Jodi Rich of Imagineering. For this reason, you will not find disk duplicating programs on the shelves of Sydney United Computers, although they sympathise with the genuine buyers. Piracy does not help any industry.

Sydney United Computers also offer a laser print service with their Microline Laser Line 6 Printers. Printing, either off an Amiga or IBM/Compatible will be done for a small charge.

This is just a small overview of one of the largest and most reputable dealers in Australia. With the growth they are experiencing, don't be surprised if you see them cropping up all over the city of Sydney.

Certainly, with the million dollar business being built up within the first year of trading, there can be no doubt of their continuing success.

## LOOKING FOR A NEW COMPUTER? WANT TO UPGRADE YOUR EXISTING UNIT? COME AND SEE THE AMIGA 2000

**SYDNEY UNITED COMPUTERS**, the State's leading Commodore Computer retailer, has this exciting new unit in stock and will trade in your current computer or printer to help you keep up with this latest **COMMODORE**. As well, we can offer you pre-loved equipment. Come and see us today.

We also offer the complete Commodore IBM compatible range, from PC40AT Compatible with Colour Screen for \$5999.00 down to the PC5 XT Compatible with green screen and free software for only \$1295.00.

Like a bargain? We are overstocked with 15" colour printers. Great for doing four layer forms. Get them while you can for \$300 off ....

**ONLY \$1699.00** (RRP \$2000)

(Limited time only!)

For full service and support, see us today .....

**SYDNEY UNITED COMPUTERS**,  
207 CLARENCE STREET, SYDNEY 2000 PHONE 29 5088  
665 PITWATER ROAD, DEE WHY 2099 PHONE 981 4455



# Hard Alternatives - Part I

## A Buyer's Guide to Hard Disks for the Amiga.

*IF finding the right disk is becoming a mammoth job, then you need to consolidate with the use of a hard disk. Imagine 2,000,000 bytes of storage waiting to be filled - accessible up to five times faster than a floppy! Andrew Farrell examines some of the alternatives.*

To begin, let's look at what hard drives offer that's especially of interest to the average user. For a start, there's space, with around 20 Megabytes of room on one disk. That's about 25 times more room than a 3 1/2 inch floppy. Secondly, speed, for reduced waiting time accessing files. The amazing part is, it's not as complicated as some might have you think.

Once your hard drive is up and running, you can treat it much the same as an extra large floppy

drive. You refer to it as DH0: rather than DF1:. You can't back it up as easily, using Diskcopy, but there are ways around this problem.

A few other limitations exist at this time which may well disappear in the near future. As of Version 1.2 of Kickstart, you must still use a floppy disk to boot your system. Commodore may remedy this situation, however a partial solution is possible by modifying the start-up sequence to ASSIGN the system directories to DH0:. Now the operating system will correctly access the hard drive, and you can remove the Workbench disk.

All the extra capacity offered is easy to get at. No need for the famous single drive shuffle, and making backups of your floppy disks to the hard drive is far simpler and therefore encouraged. Making a backup of the hard drive on the other hand is quite a task.

Whilst they rarely break down, it's worth having a spare of any important files.

By keeping your drive on a firm surface, unlikely to be jarred or subject to vibration, everything should run smoothly. In the event that a sudden jolt does affect the drive, it is possible for the heads which read the disk to strike one of the platters, destroying all of the information there. If you must move your drive, never do it whilst it is running. Normally a 'park' utility is available which will position the heads away from the disk surface, minimising the risk of data loss.

Well, what's available at the moment? Most good dealers will carry at least one of the following brands which are distributed in Australia. The Multisoft, and Expansion System units were built here, whilst the C. Ltd is imported.

Drive: **Multisoft 20/40**

Price: \$1995

Capacity: 20MB

Attaches To: Parallel Port

Drive: **Expansion Systems**

Price: \$1795\*

Capacity: 20MB

Attaches To: System Bus

Drive: **C. Ltd. Hard Disk**

Price: \$1895

Capacity: 20MB

Attaches To: System Bus

\*Requires SCSI Interface (\$1399 - Including 512K Expansion/Clock-Calendar).

To date the above three drives were the only ones available. Next month we will be carrying out a complete comparison test between these and any other units which turn up in the meantime.

## Next Month

\* **Comparison Tests of leading Hard Disks and External Drives.**

\* **Amiga at Work - New Business Column.**

\* **Favourite Games!** Send us a list of your top ten favourite games and we'll add them to our readers Top Ten next month.

\* **More News, Reviews, Hints & Tips**

\* **All manufacturers and distributors of disk drives of any type which will operate with the Amiga 500, 1000 or 2000 are invited to contact Amiga Today, to arrange for inclusion in our feature in August.**

\* **HIGH SCORES ARE ALSO WELCOME**

\* **Readers' Hints and Tips.** Send in any short cuts, or handy hints you may have discovered in using the Amiga. The best published entry each month will receive a **cheque for \$20.00!**

\* **User Groups - Do you need more copies of this magazine? Special rates are available. Please contact our distribution department on (02) 808 1860.**



## AMIGA OWNERS

# Now with Fastdrive 100, you get 20Mb to 40Mb hard disk versatility for Amiga 500, 1000, and 2000 in a single, compact unit.

**D**esigned, manufactured and supported in Australia by Multisoft, Fastdrive 100 links to your Amiga parallel printer port via a 25 pin shielded cable. This leaves the expansion port free for additional memory to be added.

Exclusive Multisoft interface electronics combined with hard disk storage drives from leading manufacturers ensure Fastdrive 100 is not only fast, but reliable.

Put these features together with local backup and Fastdrive 100 represents a breakthrough in mass storage for the Amiga owner.

#### *ADDITIONAL FASTDRIVE 100 FEATURES.*

- The vented steel case and power supply are designed to create convection cooling for the drive mechanism, which alleviates the need for cooling fans, and results in extremely quiet, low maintenance system operation.
- Up to seven Fastdrive 100 units can be daisy chained together.



- Your printer can be connected directly to your Fastdrive 100.
- Drive software runs under Amiga DOS 1.2 and easy start up and diagnostic utilities are included to verify and test for correct operation.
- 36 watt high quality reliable internal supply.

Put these features in a colour co-ordinated steelcase designed to match the Amiga unit and you have the revolutionary Fastdrive 100.

See Fastdrive 100 at your Amiga dealer now. Another quality product from Multisoft.

## **FAST DRIVE 100**



1133 Hay St, West Perth.  
W.A. PH. (09) 322 6637  
Fax: (09) 481 4060



# Deluxe Video Version 1.2

## Ersatz Design Video Productions

At first impression *Deluxe Video 1.2* looks exactly like 1.1, but this is not the case. The new upgrade has been rewritten from the ground up, with four additional tools appearing in the pull-down menus. There are four disks supplied this time. They are:

1. **Maker Key Disk** (copy protected - backup available for US\$20)
2. **Parts & Utilities Disk**
3. **Player Disk**
4. **Post Production Disk** (includes four new wipes, seven instruments, three sound effects and twenty different scene generators).

A 220 page manual is supplied, and an 18 page Post Production Kit manual. The program was supplied by Sydney United Computers.

## What To Expect

I found *Deluxe Video Kit 1.2* to be compatible to video scripts made on the 1.1 Key Maker and vice versa. The player disk has the same video script that 1.1 came with, except that one of the scripts supports the Overscan effect.

*DV* Key Maker opens to show a window titled Video Script. This window consists of five different Tracks, which can each be manipulated by a choice of 21 Effects. The Video Track holds the Scene Effects. The Control Track links two or more videos together. The Background is if you need a special effect happening behind the video. The Foreground works on the objects and effects at the front of the video and the Music Track. Each Video Script can use only ONE of each of these Tracks in every Video, but can have any number of Effects happening on the Track.

The Scene Effect opens to show a Scene Script that consists of eight tracks and 23 different Effects. Each Track has its own type of Effects (eg "Rotate To" only appears on the Polygon Text Track). Combining Tracks, Effects, and the pull-down menus, will give an unlimited variety to any video you

can imagine, given enough memory and careful positioning of Effects.

## New Features

The Key Maker now supports RAM Disks, so, if you have more than 512K of RAM, *DV* will use this additional memory as a RAM Disk. This will speed up operations of the program and eliminate disk-loading delays. You may also convert the Key Maker Disk to a RAM Disk if you have this additional memory. Remember to save your work as often as possible, especially if you have made a Key Maker RAM Disk, to avoid losing all your valuable work, as MEMORY WARNINGS & GURU MEDITATIONS do happen!

One of the new tools that has been added to *Deluxe Video 1.2* is Overscan, which will support a video window of 352 x 240 pixels instead of the usual 320 x 200 pixels. The catch is that *DV* needs 1 MB of memory on board to run this feature. You can display a script written with Overscan in it on a machine with only 512K but you can't change the script. *DV* needs the extra memory to redisplay the larger picture.

The Instruments File has been increased to support instruments larger than 28K, using the extended memory if available. *DV* will support Instruments and Music from *Deluxe Music Construction*, and *Instant Music*, and any sound effects stored in IFF Format.

Cheers, Applause and Laughs are new sound effects on the Post Production Kit. If you can sample new ones to replace these as they are rather thin in quality.

The Scene Generators, which come with an auto-installation icon on the Post Production Kit Disk, include Classics, Titles, TV News, Wipes, Sounds and Instruments.

Classics includes "Deluxe Video", looks just like the Twentieth Century Fox Logo, only the name has been changed to protect the innocent. The others are Pinnacle, Liberty (does the statue no justice), Amazing Video, Twinkle Zone, Amiga Vice and In Color & Stereo. It is possible to redraw some of these pictures and ob-

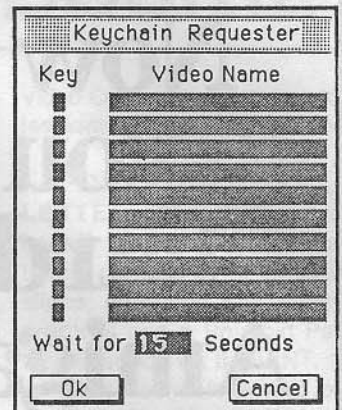
jects using *Deluxe Paint* and make your own customized scripts, as long as you resave them with the same File name. All the Classic Scenes come with optional music tracks written in. Amiga users with only 512K of memory will find it impossible to view some of these scenes with the sound track running if all the scene generators are loaded.

As the amount of memory required is more than you have left so load only the scene generators you think you may be needing. Discard the others from the Key Maker, upon reloading the scene generators the menu only displays the scenes you placed in the disk library. You will also find that, with the all extra Scene Generators loaded onto your Key Maker Disk, memory warnings appear quite often and the program responds slowly to the next command. This is caused by the small amount of memory that 512K users will find (approximately 50-60K) of usable memory left after the program is loaded.

Six new Titles have been added to include Theater, Marquee, Flashy Text, Blimp, Silent Movie and Fading Text. The Theater title consists of a picture of the front of a theater with a requester appearing for you to enter three lines of text using up to 18 characters in each line.

The new Wipe scene generators have been written to create a foreground that obscures the background picture, then to erase the foreground in the desired wipe action to reveal the background. Flames commences with a black screen, then a burning effect starts at the bottom of the screen, then moves up the screen to reveal the picture loaded in the background. Spiral, Random and ZigZag work in the same way, only the wipe pattern is different. Modification of the foreground wipe and its pattern is encouraged to create new effects of your own.

I found *Deluxe Video 1.2* to be compatible to video scripts made on the 1.1 Key Maker and vice versa. It is also possible to load the new scene generators from the Post Production Kit onto your



1.1 Key Maker disk by double clicking the Instal icon.

One problem I did find in opening *DV 1.2* was it always asked for the disk I placed in the second drive. As the disk I used at the time of this review happened to be one of my work disks I use to save the videos on, it become full without me noticing. By that stage it was too late as the last script I was working on too big to save to disk. Trying to save the script to another disk, I kept getting a requester to replace the work disk in the second drive. Then the last time it was saved, *DV* started showing me Error 16 "Can't make a workfile". I then tried resaving an empty Video Script under the same name as a script that was dispensable on my disk; this did work and I was able to restart work again. So be careful if using only 512K with *DV 1.2*.

*Deluxe Video 1.2* has the ability to make your own station identification logo, followed by the intro to the late night news. This would hold any news story, sporting results and weather reports that you have made from *DV 1.2* new ready made Scene Generators. After the news break comes a 30 second commercial made by using Automatic (animated storyboards) with music, digitized voice-overs, animated overlays, rotating text, creative wipes and fades, all made on *DV*. The price for this commercial is \$299.00 for *Deluxe Video 1.2* (from United Computers, 207 Clarence St, Sydney), and your time. To produce a similar commercial using other means would cost thousands of dollars, so *DV*



# Amiga and Acme. The future is here today

Digiview 2.0

Genlock Digipaint

ProVideo

Hard Drives Futuresound

Memory Expanders

## Digiview 2.0

THE Amiga video digitiser. Produce high quality images in colour or black & white in low, high or medium resolution. Uses all of Amiga's 4096 colours with the HAM option. Save images for use in other programs and more.

## Digipaint

The advanced drawing program utilising Amiga's HAM mode to the full. Uses Amiga's 4096 colours. Combine images with different palettes on the one screen, or work on Digiview images.

## ProVideo

The character generator that is the ideal partner to Genlock. Up to 100 screens of animated text in different fonts, colours, sizes and shading can be queued for automatic display. Excellent promotional tool. (PAL version requires extra drive and 1Mb RAM.)

## Hard Drives

ACME distribute the entire range of C-Ltd. Hard Drives. Capacities range from 20Mb for under \$1900.00. Turns your Amiga into Super Amiga. Very fast drives that connect directly to the Amiga bus. A real winner in a recent price/performance comparison.

## Futuresound

The ultimate sound digitiser for the Amiga. Digitises with NO background noise. Collect samples from your video, stereo, CD or your own voice (microphone included). It's t-t-t-errific!

## Genlock

Turns your Amiga into a video production studio. Overlay Amiga graphics/text over a video signal. Chroma-key and fade as well. Very versatile, lots of professional and educational uses. Australian PAL system.

## Memory Expanders

Expand your Amiga's memory without expanding your budget. Half, one and two megabytes of 'fast' RAM available with Auto-Config circuitry and pass through bus. An extra slot is provided so an additional 2Mb card can be added, or even a hard-drive controller. Great value and tops in quality.

## Other products include:

ACME Midi Interface, ACME Real Time Clock, Digi-Droid.

DISTRIBUTED BY:

**ACME**  
  
**SOFTWARE**

The name that guarantees support and full warranty cover.

PO Box 3 Brighton North, Victoria, 3186. Phone: (03) 596 6732

Contact us for your local ACME dealer



## Deluxe Video Version 1.2

has paid for itself after just one commercial.

Just making a demo advertisement for a client on DV before using sending the ad via a modem to the client and receive the final okay before using a Quantel *Paint Box* to make the finished ad. This would save sufficient time in programming the *Paint Box* and lower the overall cost of the ad.

TV is just one medium, there are other applications of DV in making inexpensive training videos for sports athletes, sales techniques, management reviews, repair manuals, cooking classes, and general educational products that may replace the book one day.

These are only a few applications suggested by the makers of DV, how far you take this program all depends on your imagination with the Amiga computer. The memory is the limit!

After considering these points serious video makers should have at least 2 MB of additional memory available to use this program efficiently and to its full potential. This

review was done with an Amiga 1000 with 512K and second drive unit, a further review will be done using 2 MB of additional memory and a demo disk showing some of the new features will follow.

### Upgrade Information

Electronic Arts will supply the upgrade version of *Deluxe Video* if the following steps are used:

\* Send the front cover of your original manual (as proof of purchase) along with a cheque or money order for US\$37.

\* If you previously bought the \$20 unprotected *Deluxe Video*, follow the above instructions, and include your original unprotected program disk. Your new upgrade will also be unprotected.

\* If you haven't bought the unprotected disk, and would like to do it now, send \$57 US and your manual cover.

The address to send to get your upgrade is: Electronic Arts, *Deluxe Video Upgrade*, 1829 Gateway Drive, San Mateo, CA 94404, USA. Allow about six weeks or longer for delivery to Australia.

## Print 'n Wear

Transfer paper for use with DOT Matrix or Thermal Ribbon Printer.

Computer design your own Iron-ons, in washproof colours!

Ideal for Schools, Sports clubs, Special events and Home use

DEALER ENQUIRIES WELCOME



Phone for our special pricing on Amiga systems below \$2000.

Eight 2000's NOW IN STOCK

## IBM COMPATIBLES

Phone for our special pricing below \$1000.

Phone for Details now (07) 282 6233

(Mail orders welcome)

## COMPUTER VIEW

Computer and Business Centre  
21 Brisbane Rd. Bundamba 4304



## ARTSCAPE Artdisk volume 1

The best clip art available  
for the Amiga.



Our disk is jam-packed with goodies

Included are: Clipfonts ·

Insects · Cyclepics · Icons

and a stunning slideshow.

**\$49.95** From your Commodore dealer  
or direct from Artscape, P.O. Box 751,  
Manly, 2095, NSW, Phone 938 4422.

SEND THIS CUPON WITH A CHEQUE OR MONEY ORDER  
FOR IMMEDIATE DELIVERY.

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

TRADE ENQUIRIES TO SYDNEY UNITED COMPUTERS  
207 CLARENCE ST, SYDNEY, 2000, PHONE 29 5088



MASTER YOUR **AMIGA** WITH

THE MAGAZINE-ON-A-DISC

## MEGADISC

Numbers 1 and 2 and  
AVAILABLE NOW! **3**

You'll get:

- \* Indispensable information
- \* How-to articles
- \* Free utilities
- \* Reviews
- \* Graphics and Desktop Video
- \* The latest from overseas
- \* The best of Public Domain

and much more.

Ask your local dealer or order direct from:

MEGADISC DIGITAL PUBLISHING  
P. O. BOX 759  
CROWS NEST 2065.  
TEL: (02) 959 3692 or (02) 436 4659

ENQUIRE about subscriptions (\$90 for six issues),  
the Public Domain Catalogue on disc and  
Public Domain discs (\$8.50 each), as well as  
special compilations on specific themes.  
Ask about our *Amiga Training Courses*  
tailored to your specific needs with **FREE**  
PD software included in the training!

Send cheque or money order with your order for  
immediate delivery.



# Karate Kid II

by Jason Phelps

If like me you are a *Karate Kid* fan then we are several things in common; you will no doubt be able to say Mi-ya-Gi properly, stand and keep your balance in the surf, have attempted to catch flies, and will soon own this program from Ozisoft.

*Karate Kid II* is singular in that it retains most of the details that made the *Karate Kid* movies so entertaining, like catching flies.

On loading the program you will witness a very good graphic of Daniel and Miyagi presiding over the theme of *Karate Kid II*. A set of demos prepare you for the stunning animation to follow.

Two choices now present themselves, either head to head with the computer or, with a mate (two player). The encounters occur in a dhojo backdropped with fantastic scenery and stunning rice paper cut outs. The idea is to get rid of the other guy's points before he gets rid of yours. The first guy to lose all nine points falls flat on his back.

Having successfully negotiated the first two encounters, the computer hangs up and suggests it's time for concentration.

Beware, Miyagi will appear in the flesh, chopsticks in hand and fly in tow. The fly buzzes around and Miyagi, doing a stone man impression, moves only his eyes to follow the wild gyrations of the fly. At this point you no doubt will fall off your chair laughing - even Andrew Farrell smiled.

This 60 second interlude is an opportunity to gain bonus points.

If you do not catch the fly within 40 seconds it gets bored and lands on Miyagi's nose. After five seconds Miyagi gets irritated with the fly, purses his lips and blows it off. The bonus ranges from 6,000 to nil depending on how much time you take.

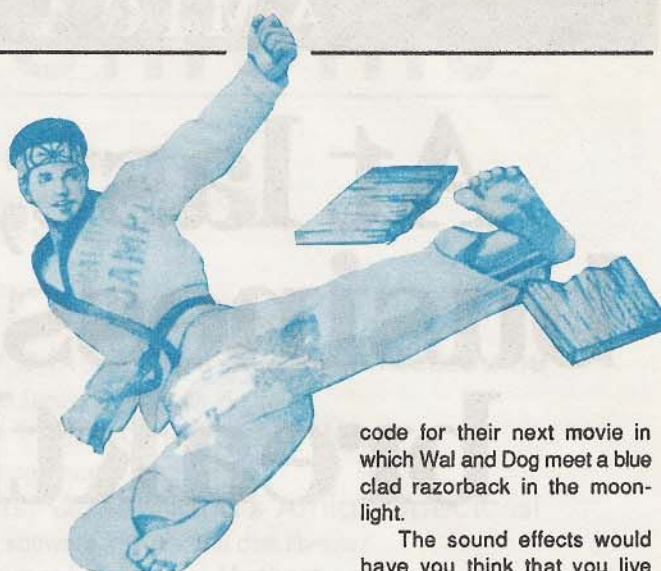
If you do catch the fly Miyagi will wink at you with a sarcastic little smile on his face.

Well, that over with, it's off to the ruins of Miyagi's garden near the sea shore for two more nine point rounds with meaner than mean figures. That under your belt, Miyagi whisks you off to a bar on the outskirts of Yokohama so that you can win back your savings and put yourself through college. Again the movie is very true to the game - Daniel concentrates his energy in front of the blocks of ice while Miyagi prays in front of a large crowd in the bar room.

With wild manipulation of the joystick and incredible reflexes, coupled with precise timing and a fine sense for the improbable you can gain yourself 500 hundred bonus points for every ice sheet you break.

The momentous night now approaches where you can nibble Japanese delicacies while the gorgeous geisha girls perform intricate manoeuvres with rice paper fans in the courtyard of the ruined Magi castle. In the middle of all this revelry you are teleported to a romantic setting in the moonlight.

Now of all the most romantic settings I know, an ice rink backdropped by a ruined castle, lit with



code for their next movie in which Wal and Dog meet a blue clad razorback in the moonlight.

The sound effects would have you think that you live next door to Chuck Norris, and as for the backdrops, they are inspiring. Ease of play befits the standard of machine it plays on and the musical score won't bore you.

As for what impressed me most about this game, I would have to go back to the fact that I now feel I can accomplish anything several times over as I am becoming quite proficient at catching flies. If you, like me, want to be top of your class, independent of the boss and bank manager, do yourself a favour and catch a fly with chopsticks tomorrow.

Sayanora, reader-san.

only the pale moonlight filtering through apple blossom trees, would have to be the best. Unfortunately there is no romance associated with the blue clad figure, named Chosen, whom you skate with on the hard packed geologist diggings in the centre of the ruined castle.

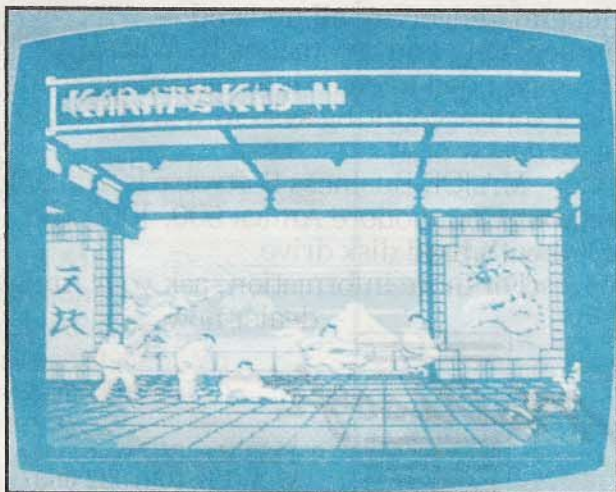
Now, disposing of this blue clad figure in the moonlight is fairly simple work, as disposing of blue clad figures goes. But there is a twist, an ingenious little puzzle. How do you get Daniel to use the defeated blue clad figure's nose as a hooter.

## Conclusions

Putting my fanaticism aside and concentrating wholly on the technical aspects of this program, I remain fanatic.

The animation would do Hollywood proud, and I hear Foot Rot Flats have bought the source

Graphics	94
Music	88
Documentation	92
Sound	86
Overall	91





# At last, a Major business software breakthrough.

**M**AJOR Business Software has been designed and developed by Multisoft, in Australia, to satisfy the needs of Australian Business.

After seven years of development on larger computers MAJOR is now available for your Commodore Amiga.

MAJOR will increase your office efficiency by providing a formalised accounting and recording system. But MAJOR does more than just keep records — MAJOR is the key to managing your business by providing more information, more quickly and more accurately.

### **THE SIMPLICITY OF MAJOR BUSINESS SOFTWARE**

MAJOR is menu driven and easy to understand. Prompts guide you every bit of the way — and just to make sure, each MAJOR module comes with one of the most comprehensive manuals available.

Test data is also provided so you can familiarise yourself with the system before starting to enter your own information.

### **MODULARISED BUSINESS SOFTWARE**

As MAJOR is in modules you need select only those necessary for your business. You can start with the General Ledger then add additional modules as your business grows ... and even an additional terminal.

Modules include:

- General Ledger
- Job Costing — Project Costing
- Accounts Receivable — Debtors
- Accounts Payable — Creditors
- Payroll



**BUSINESS SOFTWARE**

- Inventory Control
- Order Entry
- Purchase Ordering
- Asset Register
- Multi-user Amiga\*

### **FULLY INTEGRATED BUSINESS SOFTWARE**

MAJOR is fully integrated — all the modules you choose will work together. For example, when you receive an item of Inventory and

enter it into MAJOR, the Purchase Ordering system, Accounts Payable details and General Ledger are all updated — immediately and automatically. With MAJOR you only need to enter information once and all of your accounting system will always be up to date.

MAJOR Business Software is available for your Commodore Amiga 500, 1000 and 2000 with hard disk drive.

For more information, ask your Amiga dealer now.



\* Available Sept. '87.

1133 Hay St, West Perth  
W.A. PH: (09) 322 6637  
Fax: (09) 481 4060



# Full Range of Commodore PCs & Software

**AMIGA 500**

**THE BRUINING HEADLAM**

**AMIGA™**

**CENTRE**

**AMIGA 1000 KIT**

Customer Bulletin Board.

**AMIGA 2000**

**New**

**New Software Imports**  
Direct from U.S.  
Arriving Monthly.

**New**

Free Library Access

**commodore**  
**COMPUTER**

**PC10**

**PC20**

**PC40**

**New**

**AT COMPATIBLE**

IBM Compatible from \$1495 Complete.

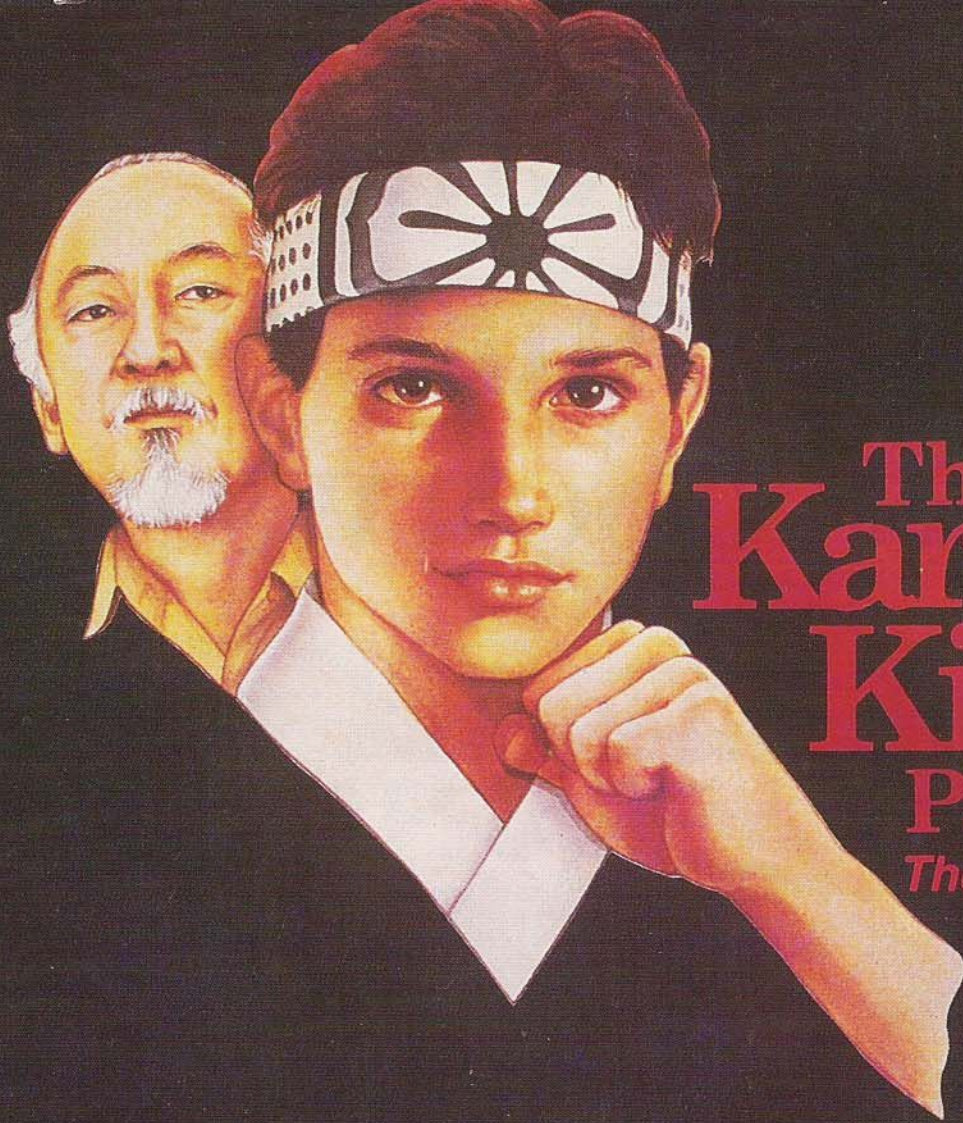
**BRUINING HEADLAM**  
**COMPUTERS**

PERSONAL BUSINESS EDUCATION

116 Cambridge Street, Leederville, WA. PH: (09) 381 2988

WA's Only Professional Commodore Dealer.





# The Karate Kid Part II

The Computer  
Game

*... when only the winner survives*

**microdeal**

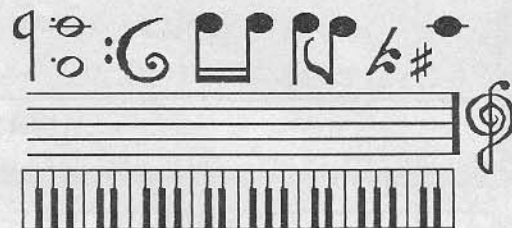
**ELECTRONIC PUBLISHING**



Distributed by:  
OZISOFT PTY. LTD. 33/8-24 Kippax St., Surry Hills, N.S.W. 2010. Phone: (02) 211 1266



# EUPHONY



**Eric Holroyd - a musician himself, takes a look at yet another music package for the Commodore 64.**

**Writing and playing of extremely long pieces of music in up to three voices is possible with this package. One of the pieces on the library disk which came with my copy of Euphony is the 3rd Brandenburg Concerto by J.S. Bach which runs for 11 minutes.**

You can get the program to play several pieces one after the other, then repeat your choice/s until you tell it to stop. You make your choice from a menu of tunes by pressing the appropriate letter key/s and *Euphony* will then load them individually from disk and play completely automatically.

Written in 100% machine, the program stores the coded music as program (PRG) files. This has the advantage of allowing full-screen editing using the usual BASIC editor - as well as easy storage and retrieval using a disk drive.

You actually use the Basic Editor to do things like change line numbers, write over lines, insert & delete, and duplicate lines - just as you do in normal Basic programming. The difference is that *Euphony* puts extended commands into the memory of the Commodore 64 to allow you to enter music in a very similar manner to that used in Basic 7.0 on the Commodore C-128.

Your music code is entered in "strings" which are then further defined as variables to be called during performance.

When you boot up the program you're presented with a menu (see Fig 1) which on my version was headed *Euphony* and which shows the various functions. You may choose to play only a section of your piece for editing purposes, in which case you state the Page and Phrase numbers (more of this later) as well as pressing "P" to play. Very handy, as you may need to play a section over a few times before your ear tells you that you've got it just right.

You may change the speed at

which the piece is to be played, also the sound of the voices to be used by pressing "S" or "V". If you wish to change the key by transposing the entire piece, you may do so by pressing "K" and choosing the key from a sub menu. Again very handy - for musicians to be able to do this in an actual performance means first of all re-writing the entire piece on paper (which can take many hours or even days for a long piece).

The C64 does it in seconds and *Euphony* plays the music in your new key - although the screen display still shows it in C major for convenience of layout.

When changing voices there is the opportunity to put the new sound into all three voices automatically from the settings you give to the first voice. A simple Y/N allows the setting of these parameters. At the same time you may choose to disable the parameters which were set by whoever arranged the music and let *Euphony* use your newly set sounds for the duration of the particular performance.

This doesn't affect the file on disk of course, only the file in memory, so you may experiment with sounds without affecting any of your stored library. (See Fig. 1A)

By choosing "D" from the main menu you get a directory of all tunes on the disk and you may then choose as many tunes as you would like to play by pressing the appropriate letter keys. For example DAFBCG (RETURN) would play the 6 tunes given those letters on the menu without any further action on your part. You could choose more if you wished.

Pressing "B" takes you back to Basic except that now you're in "extended Basic" to enter your own tunes. Here you actually write music files on "Pages" and in "Phrases". Line numbering is automatic and the example given in the manual for entering a scale of music from middle C on the piano to the C above it is as follows:

Enter NP1 to start Page 1 of the source file

*Euphony* responds with 1010 REM (all statements used are REMark statements)

Enter (at the cursor) V0 P4 C4 D E F G

```

*** EUPHONY ***

PX-Y = PLAY

L      = LOAD MUSIC

R      = REPEAT/PLAY ALL

V      = CHANGE VOICES

S      = CHANGE SPEED (1 )

D      = DIRECTORY

K      = CHANGE KEY ( 0 )

B      = RETURN TO BASIC

CMD?
```



VOI	INS	WV*	PL	AT	DK	ST	RL	FLT#
0	V	SA	00	05	08	05	09	00
1	V	SA	00	05	08	05	09	00
2	V	SA	00	05	08	05	09	00

IV1,2	DISABLE	FILTER
=0?	S.C.?	FRQ RES HI BAND LO
Y	N	128 08 1 0 0

#### +INSTRUMENTS

P = PIANO  
F = FLUTE  
V = VIOLIN  
O = ORGAN  
H = HARPSICHOED  
B = BAGPIPES  
X = XYLOPHONE  
J = BANJO  
E = ELECTRONIC  
S = SYNTHESIZER

#### \*WAVEFORM

SQ = SQUARE  
TR = TRIANGLE  
SA = SAWTOOTH

#### #FILTER

0 = OFF  
1 = ON

Fig. 1A

#### AB C5.

Spaces are optional and unnecessary.

Enter CM (RETURN) to process the file.

This returns you to the main menu to play the scale with "P".

To explain the above, NP1 means New Page & start at Page 1.

V0 means "First voice". (The voices are 0, 1 & 2).

P4 means "Play as quarter notes or crotchets" until told to change.

C4 means play the note C in the 4th Octave, then play D E F G A B C5.

C5 of course is C in the fifth octave and is eight notes higher than C4.

CM means compile the file with *Euphony's* built-in compiler and go to Main Menu.

If any entry errors are encountered by the Compiler, it'll tell you and you may then correct them and enter CM (RETURN) again.

To add notes using the other two voices to the above scale you enter "B" to go back to the Basic screen and list the file as you would any other Basic program then add to the end of the same line V1 R2 E3 F G A B C4 V2 P16 (C6D) 16

#### Explanation:

V1 tells *Euphony* to play the sequence following in Voice 1. V2 likewise in Voice 2.

R2 stands for a Rest, in this case a half-note or minim.

E3 means play E in the 3rd Octave, then play F G A B C4

In V1 the notes would be played as quarter notes (crotchets) as the "duration" hasn't been redefined since it was set in Voice 1 by the P4 statement.

In V2 the P16 statement sets the durations as 16th notes.

C6D means play C in the 6th Octave, then play D.

The (...)16 means play all inside the parenthesis 16 times.

(C6D)16 actually comes out as a fairly fast trill.

If you add up the total durations of each voice you'll see that they're equal. Voice 1 has

8 quarter notes, Voice 2 has 1 half-note rest (equal to 2 quarter notes) plus 6 quarter notes and Voice 3 has 2 sixteenth notes (equal to one eighth note or half of a quarter note) repeated 16 times. Therefore all three Voices add up to 8 beats or 2 bars of 4/4 music. If the duration values don't add up on pressing CM (R) you'll get a "Timing Error" display which totals it all up for you and shows where you went wrong. Makes it all very easy!

In addition to this demonstration scale in the manual you're shown how to make a crescendo (or rising in volume) effect using V3 which is the sound track reserved for loudness control information. You can achieve a "diminuendo" or decreasing in volume effect also by using V3 and the loudness codes set out in the manual. In a similar manner, but using the Tempo command, you should be able to make tempo changes in your tune.

To help you understand how music is entered the manual includes part of an Etude by Chopin. It's on the left hand page and on the right hand page is the code used to enter it into *Euphony*. The code is surprisingly compact as well as being easy to understand having read the manual.

If the music you're writing on your C-64 has words then *Euphony* lets you put

them on screen and time them to appear with the notes at just the right time, sort of an electronic "follow the bouncing ball" effect. There are songs on the Library disk #2 (on the flip side of the program disk) which have words on screen like this and they include Joy to the World, Silent Night, Banks of the Ohio, Amazing Grace etc. Good for kid's songs for example, and it might be nice to let the kids sing along by reading the words on screen. Schoolteachers would like this as an aid to reading I'm sure.

I mentioned above that *Euphony* uses Pages and Phrases in the music enter mode. Well, the actual screen display shows a full music staff of Treble and Bass clefs plus several ledger lines above and below the staff. (If you've been reading my "Music For Beginners" series in this month's *Home Computer Gem* you'll be familiar with musical terms being used here. If you haven't I can only recommend that you buy the back numbers as all this is covered and explained.) Below this display is a 6 octave keyboard. As the music plays the notes appear on the staff and keys on the keyboard are highlighted simultaneously.

Each voice is shown as a different colour, V0 is yellow, V1 is blue whilst V2 is green. The note being played shows on the staff in its Voice colour and the relevant key shows the same colour on the keyboard at the same time. This makes it much easier for non-musicians to recognise what's going on and de-bug any possible errors. Also shown in the screen display is the Page number and Phrase number currently being played so that you can check your code if you hear a wrong note.

The *Euphony* manual covers the rudiments of music and explains what is meant by various terms and has a handy section on "uncommon durations". A Duration is simply the time-length of notes or rests, either singly or in groups.

Triplets come under this heading, as do trills and grace notes. You'll find their explanation easy to follow and the effects possible are very real. Normal durations allowed are up to 32nd notes but if the piece you're doing needs 64th notes you can do it by doubling all phrase calculations so that eighth notes become quarters, half notes become whole notes



etc.

The files you create are known as "source files" and you may merge two or more of these files to form a larger file if you need to repeat a certain section of a tune halfway through the tune proper for instance. This saves a lot of rewriting of the same code and is a common musical device used in conventional music writing.

Source files allow up to 6100 characters, enough for about 6 pages of sheet music. When saving different versions of a source file *Euphony* suggests using a slightly different name for each one when saving rather than using the Commodore "Save and Replace" command which has been the subject of controversy for years.

After finishing your composition, or entering a piece from sheet music, you can convert (or compile) the file into an "object file" which allows loading of very long pieces to memory. The compiled code is smaller, therefore you can get more of it into memory.

The manual explains how to do all this in quite simple language. (Although if you're unlucky enough to have a copy without the manual, this article will certainly be a substantial replacement - Ed). The program adds a special extension (.OB) to filenames to distinguish object files on the disk directory.

If you try to SAVE a file using an existing filename the match is handled the same as Cockroach Software's Turbo Rom - erasing the old version before sav-

ing the new version, thus avoiding any of the Save with Replace problems. It doesn't use this method with source files however as you may need to keep them intact in their various versions until you're absolutely sure of everything.

*Euphony* has a nice easy way of accessing the 64's sound chip to get the various effects. Preset commands give you a range of instruments including: piano, flute, violin, organ, harpsichord, bagpipes, xylophone, banjo and electronic. These presets can also be altered and adjusted to your own taste.

There's also a synthesizer setting where you select waveforms from Triangular, Sawtooth or Square (in this one you must set the Pulse Width too). You also set your own Attack, Decay, Sustain and Release (ADSR) and nominate the Filter to be on or off for each Voice. Once again, there are endless possibilities for experimentation with sound and I'm sure you'll like the results you can get.

In common with a lot of other music programs, much classical music (as opposed to "pop") is included in the library. One of the reasons, I suppose, is that the composers are long dead and the music is no longer subject to copyright payments. If current pop music was used, then royalties would have to be paid to the copyright owner and there's much legal hoo-ha about all this.

It doesn't mean though that the package can't be used to write or enter your own modern music and using the synthe-

sizer mode you can get some really great sounds for this kind of popular music.

If you have an Epson-type printer (my Gemini 10x worked OK) you can get a printout of all or part of your music file by adding a "+" sign to the Play command where you decide which bits of the music to play. This, unfortunately, only prints out in the key of C major regardless of whether you've transposed the music with the Change Key feature. (This was one of my only two complaints, the other being the choice of screen colours for the main display.)

You can, of course, print your source code as a Basic program listing for study prior to editing or possible de-bugging, so I'd be using that hard copy rather than the music notation printout. A sample printout of notation is shown at Figure 2.

I've saved one of the best bits until last. This is the facility to use *Euphony*-generated music in your own programs. A program on the master disk, called *Euphony Player* can be added to your program to call up the *Euphony* file for playing whenever you need it.

*Euphony Player* will go onto a disk with your own music files (but not the *Euphony* library disk files although there is a DEMO.OB file which you may use with it) for sending or giving to a friend. What a great idea! Of course, you mustn't use it in a commercial program without permission of the author.

The publishers, TCO Software of Fairbanks, Alaska, have a continuing range of library disks and the manual asks that users send in their best efforts for evaluation and possible inclusion on a library disk. Royalties are payable on contributions included, so it's a worthwhile thing.

Libraries One and Two are on the master disk and I got Library Three with my package.

Review copy supplied by Value Soft, 3641 S.W. Evelyn Street, Portland, Oregon, USA 97219. and potential buyers could write to them at that address. At the present time there is no Australian agent but buyers not wishing to write to USA could contact me care of this magazine for more details.

04

01

FIG. II

THIRD BRANDENBURG CONCERTO  
PAGE 1. PHRASE 2.



# L.N.G. LABS

100% AUSTRALIAN MADE PRODUCTS

Also Available from WESTEND COMPUTERS  
Send you Bank Cheque/Money Order to:  
P.O. Box 246, 10 Lockhart St, Sth Caulfield, 3162  
OR 7 Kubba Road, ringwood, 3134  
OR Phone Order Direct to : (03) 879 2542



## TATTS 45 II for the Victorian Lotto System OVER \$300,000,000.00 IS WON EACH YEAR IN VICTORIAN TATTS LOTTO, SO IF YOU WANT TO BE A WINNER, THEN READ ON.

The laws of Pure Mathematics cannot be applied to this game due to excessive imperfections associated with the equipment used in the Draws. The variations encompass the balls, the barrel, the number and speed of rotations, alignment and positioning of the balls on the grid, and even the varying atmospheric and temperature conditions, just to mention a few. Hence TATTS 45 II is justified by its use in finding inclinations, repetitions, tendencies and patterns based on the above facts.

TATTS 45 II is a completely self contained program incorporating 6 main programs which are used to perform a complete analysis of numbers you have chosen. By following the guidelines as laid-out in the 14 page manual provided with each program, you can select those higher-chance numbers thus improving your chance of winning. The main options are LIST, SEARCH, STATISTICS, NUMBERS, CHANGES, and DATA 45.

This program stores all TATTS Draws since #413, is expandable to 6 from 48, provides over 30 screens of statistics, plus much, much, more.....

**ONLY \$45**  
+ \$3.00 postage and handling

## MEGAROM

### Hacker Pack V3.0

#### For Commodore 64, 64C, & SX64

From the authors of MULTI-KERNEL and MEGA-KERNEL comes their final product tuned to perfection. This 32K MEGAROM now includes one of the most compatible and fastest serial speed enhancements available for Commodore 64 computers. Also included with this package is a very comprehensive 20+ command DOS WEDGE incorporating many new instructions like device changeover, Basic un-new, and drive anti-knock. Then at any time you can enter a complete machine code monitor/line assembler-disassembler, with 25 plus commands. Not to forget the Memory Copier, Cartridge Copier, and Hi-Res Screen Grabber, all dumped to disk in Blinding Speed.

And if this is not enough, we also include a utility disk which contains Bootmaker, File Copiers, Cartridge Cracker, Disk Back-up, and over 110 entry points.

Equivalent utilities could add up to over \$200 worth of your hard earned money, but L.N.G. LABS offers this Outstanding Package to you for only

**\$69** + \$4 postage & packing

## SWITCHES

Each of these carefully hand-crafted, reliable switches allow the user to reset, cartridge reset, and pause any program on their Commodore 64's. At only \$10 each they represent true value for money.

**Special offer - all 3 for Just \$25**  
+ \$4 p&p

## FRENCH POSTCARDS

The program that is sweeping this nation by storm and causing controversy wherever it is seen. The package really packs a punch incorporating raunchy Hi-Res animated graphics and the ELECTRIFYING sounds of "Touch Me" by Samantha Fox. this master piece is a must for any collection!

**Real Bargain only \$29 + P. & H.**

\*All mail order clients must include a signed and dated statement proclaiming that they are over the age of 18 years.

## COMUTA-REPAIR SOFTWARE

This package is exclusively designed for any small business which does any repairs to broken or damaged goods. Incorporates a full Accounts package + Stock Control program, and will handle more than 200 active accounts on each Disk. Ideal for T.V. VIDEO, RADIO, MOTOR, and clothing repair stores, which are just to mention a few. A Bargain at Twice the price, so we will give it to you at half price.

**WAS \$198**

**NOW ONLY**

**\$99** plus P. & H.

## MEGADOS V3.0

### from the AUTHORS of SUPERDRIVE MKII DOS

This is a 32K drop-in DOS CHIP for SKAI, CFC, FSD, TAIWAIHO, 1541C, disk drives. This MEGA-DOS chip offers an incredibly versatile range of facilities, while maintaining 100% software compatibility. You can now have an amazing 783 blocks free on your disks and your disk drive will automatically cater for these disks upon insertion. This DOS will format your disks without rattling the head in only 25 seconds, allow up to ten times faster track accessing, provide optional write verify and programmable number of Header Gap Bytes. But best of all you no longer have to worry about SAVE"@: problems because we've taken the liberty to KILL all the BUGS!

And to top this MEGA package off, we will toss in our BITS'N'PIECES disk, containing over 40 top quality assorted programs and routines.

**Only \$29 plus \$4 postage and packing**  
**1541 version \$35 plus \$4 postage & packing**

## PLATINUM COLLECTION

A believably incredible compilation of the most exciting Graphics and Sound Demonstrations available anywhere. Written by Hackers and Programmers from all corners of the Globe, these programs literally stretch the C64's chip set to the limit of programming imagination. Each of the TEN DISKS comes complete with L.N.G. LABS special menu program to provide convenient fast loading. Don't be the last person in your neighbourhood to view this Platinum event.

**Only \$49 + \$4 postage & packing**



# Westend

Computers  
**GRAND OPENING  
EXTRAVAGANZA**



402 BELL STREET.,  
PASCOE VALE SOUTH, VIC., 3044  
PH: (03) 350 5144

**SPECIALISTS**

## HARDWARE

- (22) **LIGHTSCRIBER** ~~\$99~~ **\$69**  
Light-Pen + p. & h.  
\*Designed exclusively for PAL T.V. System
- (5) **VOICE MASTER** ~~\$79~~ **\$50**  
Speech Digitizer + p. & h.
- (4) **TAIHAHO MODEM** ~~\$99~~ **\$79**  
— 300 Baud + p. & h.  
— F/H Duplex  
— Auto Dial / Auto Answer
- (3) **1541 FLASH** ~~\$179~~ **\$79**  
+ p. & h.
- (10) **COMMODORE MODEM**  
\* 300 Baud Bell ~~\$199~~ **\$29**
- (3) **PET IEEE CABLE** ~~\$79~~ **\$50**
- (5) **CENTRONICS CABLE** ~~\$39~~ **\$15**  
\* With Software **\$25**

## LANGUAGES

- (19) **PILOT** ~~\$99~~ **\$39**
- (2) **FORTH** ~~\$99~~ **\$39**
- (9) **PASCAL** ~~\$99~~ **\$39**
- (4) **BASIC 64** ~~\$99~~ **\$39**  
compiler
- (5) **SPEED BASIC** ~~\$35~~ **\$19**
- (2) **MICRO—PROLOG** ~~\$275~~ **\$149**

## GENERAL

Unexpanded Vic 20 Software

- Intro to Basic 1..... **\$19**  
Intro to Basic 2..... **\$19**  
Mystery Island..... **\$9.95**  
Castle Tollenkar..... **\$9.95**  
Thermonuclear War Games.. **\$9.95**  
Secret of Bastow Manor ..... **\$9.95**  
The Sorcerer & the Princess.. **\$9.95**  
Crazy Kong..... **\$9.95**  
Snackman..... **\$9.95**  
Death Star..... **\$9.95**  
Typing Tutor..... **\$9.95**  
Fantazia..... **\$9.95**

\* Please phone or write for a complete catalogue  
of Commodore Software.

## **POSTAGE AND HANDLING FEES**

**TATTS 45 II**  
Dramatically  
improve your  
chances of  
winning \$1 M  
**ONLY \$49**

## COMING SOON!

All New Commodore Compatible  
Disk Drive

## SYNAPTIC 2001

- Guaranteed 100% Compatible  
-Super Slimline Design  
-Low power (15w max.)  
-Super quiet  
-Incorporates the famous MEGADOS V3.0  
-Place Back-orders NOW!

**\$349**

## UTILITIES

- (40) **MUSIC MACHINE** **\$10**
- (18) **MUSIC COMPOSER** **\$10**
- (22) **TOOL 64 CARTRIDGE** **\$19**

## BUSINESS

- (4) **DFILE 128** ~~\$99~~ **\$29**
- (2) **WORDFILE 128** ~~\$99~~ **\$29**
- (1) **WORDPRO 128** ~~\$149~~ **\$89**
- (1) **JANE 128** ~~\$99~~ **\$39**
- (1) **PROFILE 128** ~~\$139~~ **\$89**
- (3) **SWIFTCALC 128** ~~\$129~~ **\$89**
- (1) **WORD WRITER 128** ~~\$129~~ **\$89**
- (2) **DATA MANAGER 128** ~~\$129~~ **\$89**
- (13) **INSTA WRITER** ~~\$89~~ **\$29**
- (12) **INSTA LEDGER** ~~\$79~~ **\$29**
- (9) **INSTA CALC** ~~\$79~~ **\$29**
- (8) **EASYFILE** ~~\$79~~ **\$19**
- (10) **FUTURE FINANCE** ~~\$79~~ **\$19**

## TOTAL SERIES

- (29) **DATABASE MANAGEMENT**  
**\$99 \$19**
- (18) **INTEGRATED WORD & DATA MANAGEMENT** **\$99 \$19**
- (13) **TIME MANAGEMENT** **\$49 \$19**
- (8) **GENERAL LEDGER** **\$99 \$19**
- (2) **WORD PROCESSING with SPELL CHECKER** **\$99 \$29**

## MEGASOFT DISKS

- TOOL BOX 1541 MASH**  
**DIRECTORY + PHOTOCOPY**  
**MASTER LOCK — PROTECTION**

**\$25  
EACH**

\$3 NORMAL POST \$7 EXPRESS COURIER  
\$5 PRIORITY PAID \$9 IPEC OVERNIGHT



# MegaSoft BULLETIN BOARD

by J. Schollmeyer and Philip Dean

*As we have seen in previous issues, telecomputing is a rapidly growing area for home computer users. With cheaper, better modems now available, more and more people are hitting the phone lines, much to the delight of Telecom!*

After a couple of calls to the local Bulletin Board Systems (BBS), many users become overwhelmed by it all and decide they want a board of their own (I'm speaking from experience here). Setting up your own board presents two problems, one easily solved, the other not so easy.

Firstly you need the necessary hardware, a couple of high capacity disk storage devices, and an Auto-Answer modem. This is not so much a problem if you have the necessary funds, as the equipment is pretty readily available.

The second problem, however, is not so simple. To run the BBS and all the hardware you need software, and for a long time there was never much available. You either developed it yourself, which can be very demanding, even for the most experienced programmer, or you had to try and find some commercially available software, which usually meant ordering from overseas.

Nowadays there is a lot of commercial software for Bulletin Boards available in Australia, one of these being the **MEGASOFT BULLETIN BOARD**.

The **MEGASOFT BBS** is available both for the 64 and the 128, with only very minor differences between the two. The 128 BBS is virtually a straight conversion of the 64 BBS, with only a few extra features thrown in.

An interesting point about the 128 BBS is that it comes with a special chip which plugs into the spare socket in the 128 board. Why this spare socket exists, I'm not sure, I doubt if Commodore even know; however you can plug a chip into that socket and the contents then come up in a certain part of 128 memory. The **MEGASOFT** boys have obviously taken advantage of this to get some of the code off the disk, straight into a plug-in chip.

## Setting Up

Setting up the BBS and running it is a fairly simple affair. By loading the first program on the disk, you are presented with a menu. From this you can either load the BBS if you have already set up the system, or you can configure the system, and set up the necessary BBS disks and files.

This setup process is fairly simple, requiring you only to select the drive set-up, modem type, set a few other parameters for the BBS and then name the different messages sections (more about them later). Once you have entered all the data, it formats a blank disk, sets up the files and then you have your BBS disk. You can then return to the menu and load the BBS.

The Bulletin Board itself can be either a one drive or two drive setup and was basically designed for the 1541 drive, although it appears possible to connect any drive to the system, so long as the device numbers are 8 and 9 for the two drives respectively. This can pose a problem for some IEEE interfaces which set the device numbers differently.

The message section is divided into seven sub boards, allowing you to set up different sub boards for different topics. There are 11 security levels, 10 for users, and level 11 for the sysop, which are defined mainly by selecting what security is required to read or write the seven sub boards. Therefore each sub board has an individual security so you could create a secret message board for friends, and then by giving them that security level they could access the mailbox, but other users could not.

The board supports both 300 Baud (V21) and 1200 Baud (V22). File trans-

fers are also well supported with the following protocols offered, XMODEM, PUNTER and MIDWESTERN. The BBS also supports the other standard features like Chat Mode, and remote sysop functions for general system maintenance by the sysop.

## Manuals

The manual with the Bulletin Board is a pretty simple 20 page manual that covers the set up process in great detail with step by step instructions on the whole process, with accompanying photographs of the screen.

There is also general information about the way the system handles things such as File Transfers, but other than that, the manual does not really tell you much about actually operating the functions of the board.

The 128 manual is the same as the 64 manual, only with a few stickers here and there saying 128 to blot out any mention of the 64, with no reference to any of the extra features of the 128 version.

All of the system files are sequential files, rather than relative files like a lot of other systems, which poses some problems in the area of speed of access, but at the same time provides other advantages.

In the actual BBS itself the message section is very basic, messages being 16 lines of 80 characters each. One major problem is there is no editing facility with the message section. When you finish entering your message, there is no editing option, just (S)ave or (A)bort, which gives you no chance to correct a spelling mistake, or view the message and perhaps add lines, or delete lines, and other basic editing features that you would expect in any decent BBS software.

Another major fault I encountered when playing with the 128 version was an actual programming error - by unwittingly



## COMMUNICATIONS

entering something the system was not expecting, the program crashed with a 'NEXT WITHOUT FOR' error, which is simply poor programming. Who knows how many more such 'bugs' exist in the software?

Just quoting from the manual they say, "...we have tried to make this BBS simple to use and have the most to offer."

They definitely accomplished the simple to use, but I'm not so sure about the most to offer.

It's so simple to use mainly because the BBS program itself is so simple with regard to overall design, and capabilities.

Of all the BBS programs on the market I have encountered it is by far the worst; there are a number of Public Domain programs which have capabilities far beyond this little piece.

The fact that I have not seen anyone prepared to run a system on this software, despite the fact I know a few people who have bought it, is testimony to the fact that this is not much of a Bulletin Board program.

### Ratings

Performance: 38/100

Capabilities: 32/100

Versatility: 30/100

Value for Money: 12/100

Overall: 24/100

RRP: C64 \$69.95

C128 \$99.95

Distributed by Pactronics

Comments: Do yourself a favour and buy some other BBS program, you won't regret it compared to this beastie.



## COMMODORE COMPUTERS

BY COMMODORE  
**AMIGA**™

Specialising in  
Commodore's wide range of  
hardware and software

### WE OFFER:

- \* Professional advice
- \* Competitive prices
- \* Wide range of Epson and Okimate printers
- \* Service by our trained technicians
- \* Generous trade-in prices

Please enquire about the exciting new range of Commodore PCs and Amigas being released this month.

### ACCOUNTABLE COMPUTERS

BONDI JUNCTION      KINGSGROVE  
11a Waverley St      331 Stoney Creek Rd  
(02) 389 9589      (02) 502 2430

## LETTERS

### ADVERTISING

On the outside of your last issue was an ad concerning the C128 vs the Apple IIc. It stated that the C128 was expandable to 612k and that the IIc wasn't expandable at all. This is wrong, the Apple IIc is expandable, as there are numerous ads in some Apple magazines advertising expansion cards. Not that I love Apples or anything, I am strongly pro-Commodore, but I feel this is false advertising, and although it is not your fault, I think the ad should be corrected.

Also, why doesn't your magazine have a few competitions, other than for subscribers. I have already subscribed over the phone and cannot enter the current competition.

Anyhow thanks for a great magazine.

Peter Wlodarczyk  
Gilgandra, NSW.

Ed: Fair comment, Commodore take note.

### SHORT CIRCUIT

In your preview of *Short Circuit* you said you wanted to know how to get past the SAINT robots easily, this is how I do it: First of all get a jump rom and put yourself on JUMP. Stand next to the robot at the bottom of the screen and push the button and up at the same time. At soon as you land jump to the right. If it does not get past him the first time, repeat it until it does.

When you get good at it, it should only take one or two goes. This way is much quicker than yours.





# INSIDE YOUR SERVICE CENTRE

by Don Goergen

(Don's Computer Repair Centre)

*The time has come for everyone to have a peek into Queensland's Commodore Service Centre. You may well be surprised by the lack of magic around the place.*

*Gremlins there are plenty, but no exorcisms are performed. So how does your precious hardware get fixed? It is a fairly complicated process which starts with establishing the actual complaint. Easy enough - you may be thinking to yourself. Not so!*

The computer that simply refuses to run one specific piece of wonderful software will probably pass all diagnostic tests available. The technician will definitely need to have that program supplied to him along with the computer. A drive that does not load files will very often work like a charm in the workshop. Maybe it's the company of all those other machines? It makes a great deal of difference whether the error message indicates a "file not found" or a "device not present" condition. Gremlins are at work.

It cannot be over-emphasised that correct fault descriptions are essential to the repair process. Help us to help you! If you are a member of a user group you will have access to equipment. In case of problems arising do make use of this facility to establish the faulty unit within your system. It will save time, money and frustrations.

Having established the user's complaint the unit will next be exercised in order to reproduce the fault. After all, it is rather difficult to remedy an unobserved fault condition. Unfortunately, quite often the equipment will perform perfectly. Those gremlins again? Or just maybe it is unsound practises by the owner that caused the problem in the first place. Common problem areas here are misclamping of disks, the infamous "initialize" command, and incompatibilities.

## DRIVES

We strongly recommend to all 1541 drive owners never to lock the disk in until the desired command has been entered and terminated with a return. This

activates the drive motor, thus centralising the disk. On new model 1541 and 1571 drives an auto-initialize is built into the circuitry for that very purpose. Believe me, this practice will reduce your read errors by about 75%.

A drive initialize procedure is necessary when the read/write head has been left on a high track at systems shutdown. This is due to an omission in the DOS and it has been with us since the first day of Commodore drives. The condition is not transparent to the user, it simply manifests itself in "file not found" errors. Page 17 of your users manual contains the solution to this particular problem.

There is not a lot we can possibly do about incompatibilities among various drive models. Probably the best we could hope for here is increased awareness of the problem. Some programs simply will not load on new model 1541's, others do not like the 1570, and so on. Commodore being the gold mine of information they are, to the best of our knowledge there just is no way to overcome that particular problem.

## FINDING THE FAULT

The actual repair involves a process of elimination based on the technician's accumulated previous experience and the symptoms of the malfunction. With computer-related problems chips are replaced one at a time until the apparent fault condition has been remedied. With peripherals one might first substitute a known good mechanism to narrow down the cause of the problem to either the mechanical assembly or the control electronics.

Regrettably, we cannot usually an-

swer the perennial question of "why did this IC fail?". Unless the top has been blown off it the cause of failure is not apparent. When one realises that there might be 20000 actual transistors built into one chip it really is amazing that there aren't more failures.

Please use common sense in setting up and using your computer. Avoid having it on one circuit with the air conditioner, washing machine or similar. Do not plug in or remove anything with your system powered on. Above all, be very careful with extras you connect to your computer. 240v AC entering via the user port can blow every chip and quite a few tracks inside the computer as well as your drive, printer, etc.

Quite often mechanical assemblies pose problems for the technician. More often than not this is due to previous attempts at home repair. We are not knocking the DIY brigade - just do not damage your own equipment. It is not sound practice to super-glue your drive stepper motor or the bump-stop for that matter. When the technician requires half an hour with a hammer to undo two mangled screws, someone has definitely exceeded normal standards. Replacement of components may well be called for, thus incurring unnecessary costs.

## TESTING

The next stage in the repair process is testing of the repaired unit. This takes many forms and largely depends on the nature of the original problem. A monitor that originally had no screen display will not undergo the same degree of testing after repair as say a drive with intermittent saving problems. There are several reasons for this, and it is important for all to appreciate these.

No-one likes to be without his or her computer equipment. It never breaks down until you really want to use it.



## QUEENSLAND

Hence there is pressure on service personnel to achieve fast turn-around time. Even with six test stations at our disposal there is an obvious limit to the number of units that can be tested simultaneously. Further, some pieces of hardware simply do not need the same test effort as others. A computer restored from a "no display" condition to its normal power-up screen will be run through a diagnostic test routine for a couple of cycles only. It is then deemed a working unit and returned to its happy owner.

However, a drive with say, intermittent saving problems, will undergo much more rigorous testing altogether. In those instances the full array of little helpers will be called upon to flush out those gremlins. There are menacing heat-guns, a freezer that has proved deadly to bugs of many varieties, endurance soak-testing and worst, pattern diagnostic tests, and many more. The unit will not leave the workshop until the originally observed fault has been rectified. In cases of rather obscure complaints drives will

undergo a 30hr test sequence before being declared fit for a working life.

Unfortunately, there may be further hidden flaws in your equipment. You may well be unaware of these at the time, discovering them only after a newly purchased piece of software refuses to do all the great things the cover promised you. Those gremlins again! Hence the provision of a 90 day warranty period! We encourage all of you to draw our attention to such situations so that these may be rectified. It is in everyone's interest that Commodore products should enjoy an excellent reputation.

Finally, a service report detailing the work performed is written up, and the customer contacted wherever possible to advise him/her accordingly.

Isn't it time for Commodore to revise their spare parts pricing? For example, a C64 logic array stands at \$57.30 rrp! We go through lots of those, and the development costs must have been recouped many times over.

Fortunately the picture looks much

rosier in regards to the C128 range of products, with the most expensive component priced at a little above forty dollars.

Recently we have taken on the PC range, and Amiga product support will follow early in the new year. You probably won't appreciate local service facilities until you attempt communicating with far away Sydney. It can be frustrating to say the least.

By the way, if anyone catches one of those little gremlins we would certainly like to hear about it. No-one seems to know what they actually look like!!



### Australian Commodore Review

**\*\*\*DISK MAGAZINE NO 7 IS NOW AVAILABLE\*\*\***

**Now Double Sided**

**128 Software**

Title	Category	Size	Usage
Anti-Isepic	Utility/Disk	12	Removes Isepic fastloader
Sledgehammer	Utility	30	Program Compactor.
Fast Format	Utility/Disk	6	High Speed Disk Formatting.
Joystick Tester	Entertainment	4	Test joystick for faults.
Irish Jokes	Entertainment	32	Humerous collection for reading
Renumbr	Utility	9	Renumbr program lines
PS/PM/NR	Utility/Printer	74	Converts graphics to/from
Convertor			Printshop/Printmaster/Newsroom
PS Printer	Utility/Printer	18	Prints Printshop Clipart
Ultimate Writer	Home/Business	23	Generates message using key stroke recording
Graphics Editor	Utility/Graphics	48	Sprite/Character Editor (M/C)
Home Finance	Home/Business	23	Calculates interest, loans etc
Oscilloscope	Hobbyist	9	Traces wave input via interface
Dice Roller	Entertainment	8	Displays throw of multiple dice
Chord Maker	Music/Printer	24	Prints chords of any instrument
Dark Forest	Entertainment	33	Multi-player strategy game.

Title	Category	Size	Usage
<b>Side 2</b>			
Karate Kid II	Graphic/Still	22	Demonstration Only
Thrust Concert	Music/Animation	48	Demonstration Only
3D Demo	Lo-Res 3D Anim	20	Demonstration Only
Don Martin	Graphic/Anim	104	Cartoon
No More Heros	Graphic/Anim	49	Demonstration Only
Recursion	Graphic Still	22	Demonstration Only
Funny	Digitised Sample	39	Entertainment
Transputer	Graphic/Anim	68	Educational/Demonstration Only
Classics	Music	193	Listening/Demonstration Only
Special	Graphic/Anim	51	Demonstration Only
Bootmaker 128/64	Utility C128	8	Modify boot sequence.
Convert Basics	Utility C128/64	15	Identify BASIC differences

### ORDER FORM

Name.....

Address.....

Postcode.....

Cheque..... Bankcard..... AMEX..... No:.....

Signature..... Send me.....copy/s of Disk Magazine no 7 at \$12.00 each plus \$1.00 P. & P.

Post to : AUSTRALIAN COMMODORE REVIEW, TOP REAR, 4 CARRINGTON RD, RANDWICK, NSW 2031 (02)398 5111



# ARCADE ACTION

by Darren Brown



Hi everyone.

You might have noticed that John Hatchman isn't writing *Arcade Action* this month. I decided that I would take a crack at it and this is how it turned out. I have some of the latest releases and I will be telling about these as I go along.

This column has always been about arcade conversions from Coin-Ops, but I have decided that this page space would be better spent on new release games that are available in places like England and other parts of Europe, but not yet in Australia.

I thought I would start off with an Arcade Conversion anyway, because it is still a hot game. Although *Wonder Boy* is an actual conversion under the same name, *Toddler* is almost an exact copy. The game play is very similar but the characters are different.

You start off with a player looking very similar to a small baby, hence the name. The game scrolls from right to left as the player runs and jumps or shoots other creatures that try to prevent the toddler from getting the fruit which it requires to get to the next level. The game has a similar scenario on each level in which the increasing levels become more and more difficult to overcome. You start off with four lives to give you a reasonable chance but this game requires a lot of practice if you are going to finish it.

US Gold decided that they wanted another Coin-Op conversion, so they went for *Express Raider*. If you have ever played the game in the arcades you'll know it can be ultra-frustrating but fun at the same time. The computer version is the same. Parts of the action will make you want to throw your joystick at the screen. Parts of it will have you on the edge of your seat.

The idea behind the game is pretty basic. You have to fight your way onto a train, fight your way along the top of it leaping from carriage to carriage, then onto horseback for a rip-roaring ride up the side of another train shooting up the gunmen defending the gold. All this has to be done within a given time limit—fail and you lose a life. The good news is that you can always restart the game where you left off. None of this back to the beginning nonsense. The game really lacks in sound effects and music but the play makes up for this loss. Watch for it in the shops as it should be there soon.

2000 AD fans will recognise the hero of Martech's latest license *Nemesis The Warlock*. He'll be continuing his fight against the alien-hating Torquemada in their new game. Armed and dangerous, you'll stalk through the screens in pursuit of that personification of evil, laying waste to any terminators who get in your way with a sword, gun or if disarmed, acid spit! As you play a digitised picture of old Torquey builds up in the corner of the screen and, should he fill in completely, all the dead terminators turn into dead zombies and come after you. Look out for this one at a software shop near you!

*Thanatos* is the new release from Durell this month. This game is quite different from other un-

original concepts, whereas you are a dragon. You start off flying over an ocean towards land. Once on land, you come across small men that throw things at you. Don't think because you are five times the size of the men, that you can't be hurt. The fact is these men can cause a lot of damage if you let them. You only have one means of defence fire. You only have a certain amount of fire that you breath, so don't waste it. You fly through different levels with different creatures to kill. Most of the music was written by Rob Hubbard, so there are some catchy tunes in the game. The game hasn't really got a lot of action, but it should get people addicted quite easily.

Palace's next release, *Stiff Flip & Co*, is a spoof of those Twenties and Thirties ripping yarns, using many of the cliches and topics of the comics and films of the era. The game centres on Sebastian Stiff Flip, his three pals and their intrepid quest through the jungle for the wicked Count Chameleon. It turns out to be an icon-driven arcade adventure and writers Binary Software promise "instant playability".

Well that about wraps it up for another month of game reviews, keep a watchful eye for the next issue of *The Australian Commodore Review* where there will be plenty more reviews and latest news from the software companies, but until then, enjoy this month's issue.





*Don't miss out on these great bargains!*  
**Australian Commodore Review Disk Magazines Nos 1 to 6**

**Disk Magazine One**

**Features:**

Forest Raiders - Full machine code shoot 'em up  
 Machine code paint, border, input and flash routines

Nice Lister - for readable listings on  
 non-Commodore printers.

Recover II - for recovering deleted files,  
 and a catalog program - for getting a disk directory  
 without losing your program

**And More...**

**Disk Magazine Two**

**Features:**

Programs demonstrating 3D graphic plots

A terminal program called Teleport

A tutorial on bits and bytes

Character editor - for designing your own  
 custom alphabets and graphics

A full demonstration of Electronic Card File

**And More...**

**Disk Magazine Three**

**Programs:**

Hangman	Labyrinth
Calendar	Finance
Typing Practice	Roadblock
Bird Invaders	

**Features:**

Constructabrix - education and graphic  
 construction program for younger users

**And More...**

**Disk Magazine Four**

**Special Issue**

**Featuring:**

Graphic Workshop - a complete design system for  
 sprites, graphics, and character sets - with tutorials

**Also:**

Typing Tutor - a complete typing program  
 Works on errors  
 Counts your speed

**And More...**

**Disk Magazine Five**

**Our Biggest seller yet...**

**Featuring:**

Utilities for using Newsroom on an MPS 802 plus  
 printing disk cover with directories, writing signs,  
 printing Doodle and Printshop pictures and more all  
 on the MPS 802!

A demonstration of games in the future

**And More...**

**Disk Magazine Six : Latest Release**

**Featuring:**

**Games:**

Bert the Bug  
 Hangman

**Home Inventory**

**Graphics:**

Light Fantastic

**Demos:**

Amiga Pharoah  
 Space Harrier  
 Max Headroom  
 The Pacer  
 Sade

**Utilities:**

1571 Utility  
 DIR@828  
 Disk Filer

**And More...**

**Order Form**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

P/Code: \_\_\_\_\_

Cheque: \_\_\_\_\_ Bankcard: \_\_\_\_\_ AMEX: \_\_\_\_\_

No: \_\_\_\_\_

**Please send me:**

\_\_\_\_\_ copies Disk Magazine No 1 @ \$10  
 \_\_\_\_\_ copies Disk Magazine No 2 @ \$10  
 \_\_\_\_\_ copies Disk Magazine No 3 @ \$10  
 \_\_\_\_\_ copies Disk Magazine No 4 @ \$10  
 \_\_\_\_\_ copies Disk Magazine No 5 @ \$10  
 \_\_\_\_\_ copies Disk Magazine No 6 @ \$12

PLUS \$2.00 P+P

TOTAL \_\_\_\_\_

**Post to:**

Australian Commodore Review  
 Top Rear, 4 Carrington Road,  
 Randwick, NSW 2031  
 OR  
 Use your credit card and call us  
 on: (02) 398 5111



# ADVENTURERS REALM

By Michael Spliteri



Welcome to a special sooper-doooper sized section of the Realm. To make up for missing last month's issue, I've decided to produce an extra-large adventure extra. Those of you who enjoy Strategy & Wargames would no doubt welcome Barry "Bomber" Bolitho to the Realm - he'll be bringing you the latest on the warfront, starting this month with reviews of *Russia* and *Battlefront*, as well as *Legions of Death*. Also welcome Gary Osbourne, who is responsible for digging up solutions to many of your Zork queries, and is the brains behind the creation of the Clue Database.

The Realm has moved again! (Contrary to belief, I do not keep changing addresses to thwart Zorkers - though it's a good idea!!). Please note the new address!!!

**ADVENTURER'S REALM**  
1/10 RHODEN COURT  
NORTH DANDENONG  
VICTORIA 3175

When writing to the Realm, remember the following:

- 1) If you want help for clues, enclose a stamp.
- 2) Don't ask for complete solutions or maps (Well, you can ask, but you won't get any!!)
- 3) State clearly what mag you are writing to - *GEM* or *ACR*.

## ADVENTURE REVIEWS

Here is a quick round-up of some adventure games that have just appeared on the market.

### MASTERS OF THE UNIVERSE US GOLD

For Commodore 16,64,128,+4.

This is another of those Kings, Princesses and Princesses type of game. *Twin Kingdom Valley* made us sort out feuding Kings, *The Pawn* made us rescue a Princess, and *9 Princes in Amber* gave us a few Royal Family problems. "Get the He-man" is the task set by King Randor in *Masters of the Universe*. Why? Cos He-man knows how to prevent the earthquake that's about to threaten Eternia.

Actually, it is the He-man who actually types out the commands - yes, you! Yes, folks, it's another one of those David Banner into the Hulk routines as our Prince searches for a certain Sword that will enable the great transformation!!

And if you thought *Dallas* had some wacky plots then take a look at this! The earthquakes do not occur through natural causes. Yup, that's where our Baddie comes in. The evil Skeletor has magic powers, but so has your girlfriend, The Sorceress, who has some kind of magic (good title for a song) up her sleeve.

As usual, there are more baddies than goodies, and Skeletor's crew will soon have you comfy in your grave within minutes of gameplay. However, with clever thinking and strategical tactics you can quickly type QSAVE and avoid a visit to old Beezelbub down below ground level.

**Graphics:** If you own a C16 then it's tough Arnott's cookies. However, if you own a 64 (like about half of Australia's population) then you'll be gifted with pretty pictures (meanwhile, a debate in *GEM*

tries to get graphics abolished...).

A fairly reasonable vocab, I mean reasonable in that it's good enough to get you here and there. Let's just say it's adequate. Not a bad adventure game - it rates in my Top 100.

**RATING:** 80%

**VERDICT:** Take a gork at it!!

### HOLLYWOOD HI-JINX Infocom

This is the latest classic adventure from those guys in America. You play the part of a nephew of a famous Hollywood actor, Uncle Buddy Burbank. Well, Unk's snuffed it and left all his dough to you!!! All you have to do is spend the night in his huge mansion searching for ten treasures. After spending a good year trying to enter the place, you can get down to the nitty gritty of things.

The game is a bit like an above ground *Zork* with a soapie twist to it (?)!! The game was written by Dave Anderson, Infocom's latest genius. I'll write a special review as soon as a nice software firm sends me a review copy!!

**VERDICT:** How can I give it a verdict if I haven't played it?

### A GUILD OF THIEVES Magnetic Scrolls

This is it! The sequel to the *Pawn*! Again, as soon as a nice software firm sends me a review copy I'll do a special review on it. I've seen the game running on an Amiga and it looks smashing!! Great graphics and great text and great parser.

First task set by the adventure is to ransack the local castle (which is a small place, only a few hundred rooms). The castle also has a back yard, which is composed of a few fields and lakes, as well as a graveyard. Then of course, we have the maze, which takes place in a



## ADVENTURER'S REALM

complex of caves. So, we have your normal run-of-the-mill adventure games from all the appropriate locations. Slightly easier than the *Pawn*, but about as many puzzles. I think I've crapped on enough - just wait for the proper review.

**VERDICT:** To be announced somewhere, sometime in the future.



## REALM'S DEBATE CENTRE

Will this debate ever end? If you've been dead for the last few months, readers of the Realm have been debating on whether they want cryptic clues or straightforward clues.

**Wolfe the Enchanter** hates cryptic clues: "I don't write to a magazine for help so I can get another puzzle I have to solve first."

**Robert Maney** also hates cryptic. "I would like to see them given virtually as they need to be typed in. I can think of very little more frustrating than spending more annoying hours trying to come up with the correct combination of words to use the hint correctly."

**Karla Slack** adds her comments "I think straightforward clues are the best as I am hopeless with cryptic clues" (MS: *At last! Someone who actually admits why she prefers straight-forward clues - literally!!*) "Some cryptic clues take as much time to solve as the original problem, which to me is a waste of time!!"

Just when I was about to end the debate with cryptic clues losing, **David Halliday** writes in: "I think they should be cryptic, like **Vivienne Slater** (MS: *Huh??*), and **Heather Marshall** (MS: *Huh? again*), you feel slightly cheated reading complete solutions, but if you read cryptic ones, the answer is there, all you have to is work it out!" (MS: *Yes, but isn't that what normal adventure problems are like?*)

So, unless someone can think of a great reason for going cryptic, straightforward clues will be printed in the Realm. However, complete solutions will not be displayed!!

## NEW DEBATE

OK shop owners, now it's your turn!!

It's you versus the readers!! I want to hear all the arguments for and against stocking Infocom adventure games!!

## \*CHIT-CHAT CHIT-CHAT\*

One of the hassles about doing this column is that I can never play an adventure cos I always feel tempted to help myself to all the clues. So it was with joy that I sat down and played *Trinity & Tass Times*, cos they were so new nobody had sent in tips. I was halfway through both when a character called "Wolfe the Enchanter" sent me solutions to both. Oh well, you can't win them all!! Anyhow, if any is stuck in these games, now is the time to write for help.

Wolfe gave me his opinion on a few games, one particular being *The Pawn*:

"I am now going to have a whinge about certain things. The major gripe is *The Pawn*. What exactly is so amazing about it? Are the graphics amazingly amazing? The graphics on the Amiga are complete \$%&%\$. They are so incredibly average it's just unbelievable!.....And the parser! I bought the game because everyone promised an excellent parser! Ten minutes after beginning play I was climbing over the walls in frustration with its niggles." He then goes to list enough

niggles to put *The Pawn* off the market. It doesn't stop here....

"The puzzles are even worse than the parser!!"

So here is at least one person who doesn't like *The Pawn*. Anyone willing to defend the program???

What do people think of Wolfe's helpline idea? "Why don't you start a clever contacts section like ZZAP so that people have someone to talk to quickly rather than waiting six months for magazines."

**Robert Maney** talks about the disk *Hobbit*: "Even though this game constantly crashes and has more bugs than the beds in a Turkish prison, I enjoy playing it....".

Robert also faces a serious problem, he lives in Adelaide and is having difficulty buying good adventure games. Can anyone recommend any good stores who stock a decent range in Adelaide?

The popular games are sure getting a beating this month!! **Patrick Meehan** bashes up *Arthur Dent*... "I notice that

you often get letters with requests for *Hitchhikers Guide*, and this is quite understandable as the program has some bugs and a lot of unlogical solutions and is somewhat frustrating to play. My own opinion is that it wasn't that good!"

Patrick ends his letter with a word about the new Activision game: Incidentally, *Portal* by Activision is quite good and somewhat radically different."

**Karla Slack**, Springwood, NSW, solved *Adventure Quest* in only 15 hours!! If you need help for that game, Karla is willing to oblige. Her address is P.O. Box 201, Springwood, NSW 2777.

Meanwhile, **David Halliday** wants some adventure pen-pals. His address is 36 Flinders Rd, Bass Hill, NSW 2197.

## CHEAT OF THE MONTH

**David Death Bringer** is this month's cheat. He writes....

"In *Bard's Tale II*, when you enter a shop, turn the disk over. Everything you can find in the game will be there. But when you go to buy the item, you **MUST** turn the disk over!!



# PROBLEMS PROBLEMS

People are stuck in Adventure games all over Australia. If you know the solutions to any of the problems printed below, send them in and I'll publish them like I've done elsewhere on these pages.

If you are stuck in any games, don't hesitate in sending in your troubles (yes, Zorkers too.) If I can't help, someone out there just might be able to!! The main games I can help with are the disk based adventures, however, our clues database is getting under way and this will open our horizons to cover almost every adventure game available!!

So, let's start the ball rolling with a couple of short letters:

I have been stuck in *Twin Kingdom Valley* for a year. Have killed dragon, have dragged treasure chest through to the cave, but how do I proceed? The only thing to do is wander through the castle achieving nothing. Have secret of life, but what do I do with it?

Please help.

Barbara Carter  
Manly, NSW

I have been stuck in *Lord Of The Rings* Pt 1. When Strider leads you along the highway, how do you prevent the three black riders from getting you?

David Newmann  
Muswellbrook, NSW

1) *Seabase Delta* (Firebird)  
How do you obtain the egg from the

## ZORKERS OF THE MONTH

Goes to about 80% of the people who wrote to the Realm. Actually, Zorker of the Month goes to Steven Suthers, Sydney, who after drowning me with problems from various games, **THREATENED** to become a Zorker!! "Just wait until I get my hands on Zork I, II, III!" he writes. Well Steven, that comment has earned you Zorker of the Month in both magazines.

sleeping hen?

2) *Dracula* (CRL)

How do you descend the stairs in Part 2?  
Bradley Wallis  
Yarraville, VIC

Hi! I have a little problem with *Never Ending Story*. I have made it into Spook City but I don't know how to get through (or out) of this place. Spook City has me stumped!!

Karla Slack  
Springwood, NSW

I have a problem in *The Hobbit*. I go east twice from the gates to Mirkwood and get to the bank. I throw the rope and pull the boat across **BUT** how do I get onto the boat and go across the river?

David Newmann

Hockay!! That's enough of the small talk, here are some more problems from troubled persons around Aussiland:

Peter Davies is stuck once again. In *Classic Adventure* how does he get the sword from the stone, get past the orge and get through the underground reservoir. And in *Lord of the Rings* Pt 1, how does he get the Green Knight and the Red Lady to cooperate? How does he rescue the others from Old Willow? Tom Bombadil is about as much help as a.....ahem.

Oh dear, Colin Walker of Morwell, Vic tried too play to many adventure games at once, and he ended up with too many problems!! Here goes.....

*The Helm*: Got to Jewelled Room but keeps falling in Dungeon.

*Se Kaa of Assiah*: Can't get past Black Guardian.

*NeverEnding Story*: Does not know what to do once in Morlas Cave.

*Colossal Adventure*: Cannot solve maze where Pirate keeps chest.

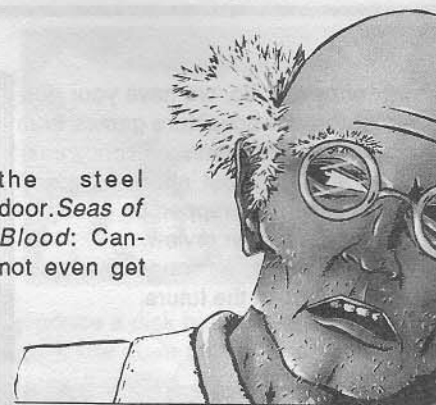
*Nightmare*: Cannot pass Massive Dinosaur.

*Mad Mummy*: Cannot open robe in Master Bedroom. Cannot leave Egyptian room.

*Gremlins*: Gremlins watch movie, but still gets killed.

*Onion Quest*: Got as far as the ledge with

the steel door. *Seas of Blood*: Cannot even get



off boat except for short swim.

*Ring of Power*: Cannot find five gold coins to work elevator.

*Dragonworld*: Cannot get past "Room of Mirrors."

*Dracula*: Cannot survive first night after eating dinner.

*Twin Valley*: Any correspondance???

*Adventure Quest*: Correspondance???

*Ulysses*: Correspondance????????????

Finally, Colin would like some penpals. His address is 11 Foster Ave, Morwell, Vic 3840.

David Death Bringer (nice middle name, must be something to do with his childhood) is stuck in a few games:

*Never Ending Story*: Can't find Aurn in Part 2.

*Smugglers Inn*: I can't get past the smugglers.

*Golden Baton*: How do you salt the slugs.

Tony Branson of Glenelg also plays too many games at one time.....

*Tir Na Nog*: How do you get past Nathair? What are the keys for the locked doors in An Lin, Empty Land and Dun Dhomnuil?

*Kwah*: How do you get passed the door with the mike in the security area?

*Sherlock*: Any tips for latter stages of game appreciated.

*4th Protocol*: How do you play this game (Oh-oh-pirate!!)

Kenny Cregan is having fun with Level 9 games. In *Lords of Time*, how does he get out of the plant once you kill it? In *Emerald Isle*, how does he get the canoe into the water????

Meanwhile, Mark Kluzek of Belmont, Vic, is having great parmacles (new word invented by me) in *Classic Adventure*:

1) How do you make it to the passage above the dome?

2) How can you enter the passage where the emerald is?



3) What is significant about the volcanic area beyond the troll?

4) Is it possible to enter the opening at either side of the e-w passage where the dome is?

Queenslander Linda Ulett of Bray Park is stuck in numerous fingedomes (another new word invented by me - don't write in asking why, I'm just bored). In *Gremlins*, what is the drill for? How do you blow up the little rascals? How do you kill the mailbox Gremlin? In *Snowball*, where is the flask of air? In *Pub Quest*, how can I get more light for the sewer? Also what does "Toilet is a relieving word" mean? In *Eric the Viking*, Linda has 25 more points to collect. How?

Wolfe the Enchanter stoops low to ask a question on *Spellbreaker*: "I am currently playing *Spellbreaker* (Oooohhhh!) and I am completely stuck. I have eight cube (earth, water, fire, air, plus the meadow, changing room, retreat and graveyard). I have the key to Belboz and these spells: Jindak, Maylon, Gnuston, Frotz, Rezrov, Yomin, Lesoch, Blorple, Caskly, Throck, Espnis, Liskon, Tinsot, Snavig. What the %&\$& do I do next???" (Please, please etc.)"

Wolfe ends his letter like this: "I'll thank you for your help (help me or else) now because I just know I'm going to get it."

Karla Slack is stuck again, in a different letter. In *Lord of the Rings* how does she get to the Blue Mountains without Strider (from Bree square).

D.Walch (Chatswood NSW) supplied some *Lord of Rings* info, but he is stuck himself. How do you get the whole fellowship past the Square room in the mine of Moria.

Steven Suthers is stuck in a few games.....

*Red Moon*: How does he swim without



## ADVENTURE FUNNIES

Yes peoples!! Funnies are back again!! Try these out....

**Game:** *Mindshadow*

(From Steven Suthers)

-kiss the girl at Rick's Cafe.

-kiss a man, or even %&\$& him!!

(MS: Hey! This is a family column!!)

-look at the man in the shower (MS:

*Really! This is disgusting!!*)

-look at and try to enter the car at the airport.

-listen to the shell

-look in the mirror

**Game:** *Leather Goddesses of Phobos*

-look at and try to enter the car at

the airport.

-listen to the shell

-look in the mirror



**Game:** *Leather Goddesses of Phobos* (From Michael Tod)

In Tame mode, after finding Trent/Tiffany, type Score. Repeat in LEWD. For a bigger laugh, try entering SCORE WITH TIFFANY when you are with Trent (or vice-versa). When entering LEWD for the very first time, enter an age over 120.

**Game:** *Hitchhikers Guide*

(From Michael Tod again!)

Try looking under the bed, and while you're in the bedroom, try calling the police.

running out of breath? How does he get past the room of flashing lights?

*Holy Grail*: What does he do with the Grail? What is the dictionary for?

*Twin Kingdom Valley*: Is there an end to the game or does it just go on forever?

## HELP!

Here is everyone's favourite part of the column, where secrets are revealed and where troubled minds are laid to rest.

All the help has been contributed by readers, and many thanks to those who contributed. Cos I don't know what mag the tips should appear in, I'll put them in both - so don't write in and complain about it!! First I'll give a few hints hopefully to reduce mail intake.....

Mike's contribution to the Help section: *(Hitchhikers)* Screen door is understandable. But left in the dark?? This is the simplest problem in the entire game!! Yet still people write in asking what to do in the dark place! Type LOOK about four times and you'll notice one sense is missing....try using it! Crikey!!!

I've decided to reprint the *Hobbit* problem, since lots of you are STILL stuck in that spot (Hey, I'm allowed to criticise you lot, it's only fair!!) In the Goblin's Dungeon, ask Gandalf or Thorin to carry you through the window. Then

go SW.D.N.SE.E. It might be a good idea to kill the Gollum. NOW OVER TO YOU.....

The Australian Adventure Masters (Free club, 197 Anzac Terrace, Basseb-dean, WA 6054) sent in a few tips:

*Classic Adventure*: Bear is D,S from fork in corridor. *Sherlock*: To catch up with Basil after Old Mill Road, tell driver to return to Main Street. Basil is there with the agent. They will take the train. Sherlock has to take the Police Cab and get to Kings Cross Road.

Future Zorker Steven Suthers donates many tips to many adventurers:

For: Troubled Adventurer and The Adventurer

**Game:** *Never Ending Story*

Help: The apple is the antidote for spider's bites; the knife will cut down the spiders web; the iron key unlocks the door to the dungeon; the book & paper are only clues about the glass fragment and the gold key. In Part 1, the only place you can fly on Falkor is in the desert, or in the small wood.

For: Gunars Berzins and Malcolm Rodd

**Game:** *ClassicAdventure*

Help: (Another BEAR tip) The bear is in the barren room, which you can get to by passing the troll in the large deep chasm. To get past the troll, throw the golden egg. On returning, the bear will deal with the troll if you feed it. The egg



## ADVENTURER'S REALM

should still be there. Waving the black rod on the bank of the fissure will make a bridge.

(Peter Davies also contributed to this tip)

For: Mark Sievers

Game: *Elite* (What! *Elite*? Wow!)

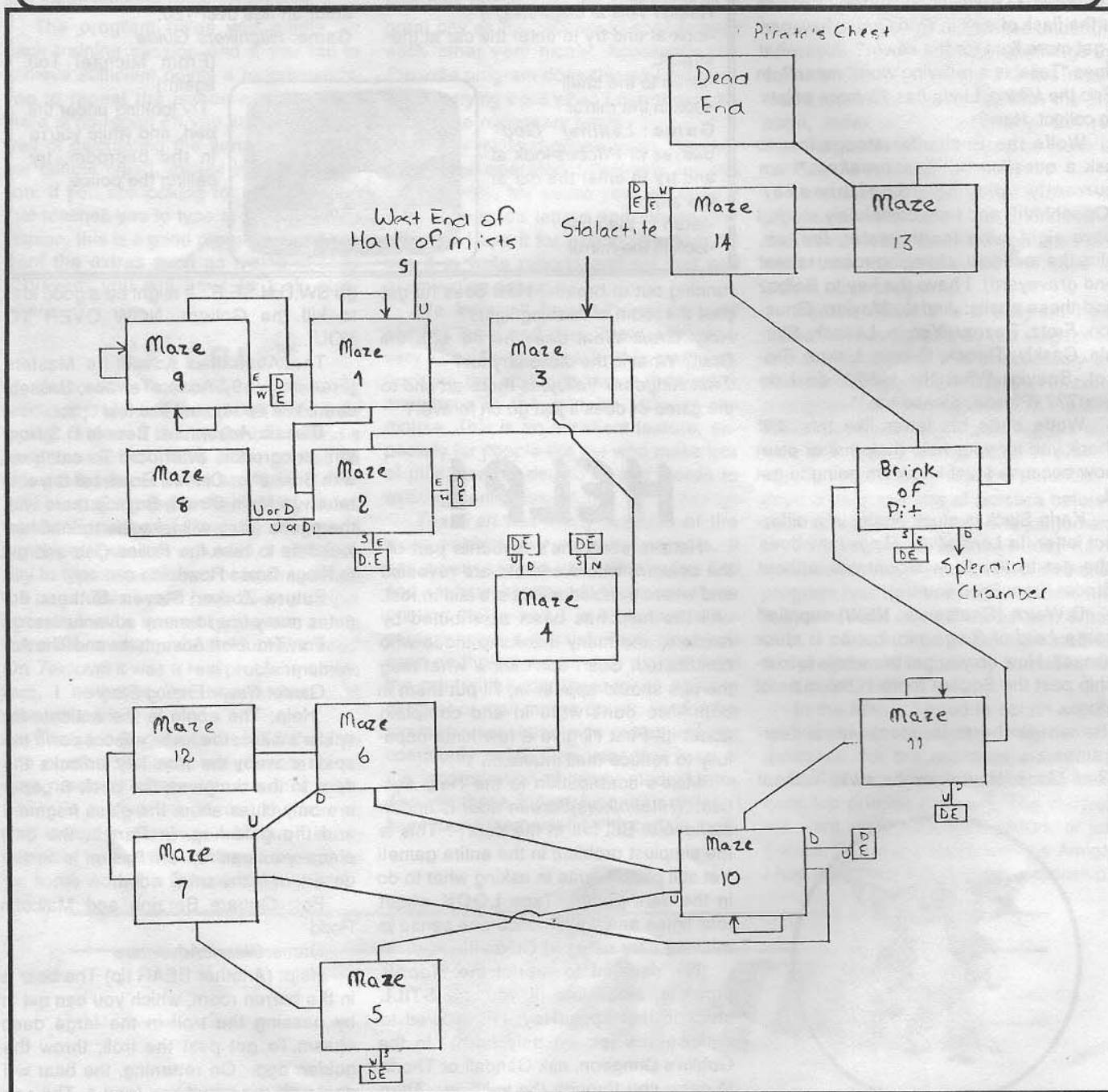
Help: To get the first mission you must be in the first galaxy at a level of "competent". You must shoot fifty spacecraft before the "Right on Commander" message appears. On docking you'll be given a mission. If the mission is successfully completed you will become

"dangerous" and be in the second galaxy.....(to be continued).

And here are a couple of the many "general hints" sent in by Steven: *Castle of Terror*: To find the treasure, push the skull then take the book. To get some more ale, hang around the inn. The ale is

## CLASSIC ADVENTURE

*"Maze of Twisty Little Passages, all alike"*





## ADVENTURER'S REALM

good for putting out fires.

**Murder on the Missisipi:** Inspect the railing outside cabin 4. You will find a gaff in the engine room. Show the captain any notes from Gladys about her jewels. Show the captain a locked door, then go to Henry and get him to unlock the door.

Meanwhile, David Thomas sends in some general hints....**Spiderman:** Lower the thermo to freeze Aquaman. Climb in the roof to get Sandman's gem. Spray the web at the Butters on the fun to stop it.**Castle of Terror:** Help the villagers. The cross will quieten the Count.

**Hitchhikers Guide:** When you come back as Ford, Say "Lie in Mud" to Prosser.

**Mindshadow:** You need the whiskey to get off the island.

Linda Ulett supplies help for two recent troubled explorers:

For: Maree Reynolds

Game: *King Solomon's Mines*

Help: To get past the mosquitoes you need the bottle from the Oasis. Just dig to find it. Inside the bottle are anti-malaria tablets.

For: Craig Sullivan

Game: *Castle of Mydor*

Help: When in library, turn inkwell.

Ellen Budden was so overwhelmed with the help given to her that she decided to lash out again and come to the rescue of another batch of adventurers.

For: Mr R.P. Trueman

Game: *WarGames*

Help: Sickbay problem...."Yes! Jump IS cheating!! You'll need scissors (found under the pillow - **REMOVE PILLOW**), screwdriver and rubber gloves (found in desk drawer). **WEAR GLOVES**, go to room where panel is, **LEVER PANEL, CUT WIRES**. The you can just **GO DOOR!**"To get shiny object...."You must be wearing the gas mask when you go down the waste shaft. To get the mask, from sickbay: **GODOOR,S,GOROOM, E**

For: M.Scott

Game: *Case of the Mad Mummy*

Help: To open wardrobe door in master bedroom, **DON'T!!** Wait till later. To get through stone doors...look wall, look bull, twist ring.

For: Dominic Lacey

Game: *King Solomon's Mines*

Help: To get past swamp: You must

have rope!! Go north into quicksand. Throw rope (quickly!!!), then pull rope until you are free. To question the dying adventurer (**MS: Da Da De Daaaa!**) ...too late - he's dead.

For: Craig Sullivan

Game: *Castle of Mydor*

Help: To open panel, **CUT CABLE** (found at bottom of well).

(David Death Bringer also donated tips for the above two problems).

David Newmann gives Marc a hand.

For: Marc Gallagher

Game: *Lord of the Rings* (Wow!! A *Lord of Rings* tip!!)

Help: Wear ring (to get past Barrow-wight) Go east, take ring off, knock on hatch, use the name "Underhill". Go through gate, go west - the stranger is Strider.

(Also contributed by Karla Slack)

And B.Sweeney gives Thomas a hand.

For: Thomas Emery

Game: *The Pawn*

Help: Guru problem - removal of the wristband happens a lot deeper into the game, this I will not answer. To stop the Guru laughing try covering the wristband, with a shirt maybe very useful.

Owen Wallace gives Mark a tip.

For: Mark Locandro

Game: *Entombed* (by Ullitmate Play the Game (Yawn))

Help: Get the knot off Isis, go to the mummy's room to get the bowl of fruit, then go to the room with the ghosts to get the book of the dead. Go to the snake room and open the chest. (The cobra problem).

Another tip for Maree comes from Kenny Cregan.

For: Maree Reynolds

Game: *Lords of Time*

Help: From the shed go NE,W,UP,N Then tie the two short planks together and drop them. Cross the river and give the Narcissus the Looking-Glass. He in turn will give you a lode stone. Go to the shed and type "get keys with lode".

Peter Davies also sent in help for troll dealing in *Classic Adventure*, however, he also gives some tips on rare coins!

For: David McKinney

Game: *Classic Adventure*

Help: The rare coins are not treasure, they are for buying new torch batteries from the vending machine.

The Troubled Adventurer had difficulty with certain items in *Never Ending Story*. Steven Suthers supplied some. So did Karla Slack. The golden key is used to get into the Ivory tower. Maybe the Troubled Adventurer can tell Karla how to escape from Spook City.

### \*ANOTHER LORD OF THE RINGS TIP\*

From: Karla Slack

Help: The Elfstones are to be found: 2 are in the Silver Lake (Merry can swim!!) 2 are in the Old Man Willow Fissure. 1 is in the tree in the gloomy place.

And we also have some *Ballyhoo* tips for Phillip from Glen Christie of Blackwood, SA.

For: Phillip Mayer

Game: *Ballyhoo*

Help: Give the fat lady the Granola Bar. To find this bar ask Rimshaw to hypnotise you and then sidewall the big top. Go to the turnstile, untie balloon, inhale helium, say hello to Harry, pass through turnstile (**MS: Pretty nifty, eh?**) Crack whip at smooth lion (*What's a smooth lion?*) three times, open grate, throw meat in passage, close grate, lift lion stand. (Lions hate stools.) To move the plywood, carry clown mask, wear mask outside clown caravan, knock on door, enter.....

David Death Bringer (**MS: Love the name!!**) also joins the helping parade...

For: Darryn Pearce

Game: *Mercenary II* (Wow! Again)

Help: To get the triangle key, board your ship, fly 10,000ptas, fire a missile, then fly 08-08, take the crashed ship and now you have a key that can open every door!!

That's all for this month!





# C64 RELOCATEABLE DIRECTORY

by G. Winterflood

The following short utility is a disk directory program for the Commodore 64 which enables the user to view the directory of a disk in the drive without overwriting a program in memory. The main advantage of this routine over other similar ones is that it can be relocated to any RAM address, and a simple SYS command to that location will display the directory.

Type in and save the program then type RUN. If an error was made in the data statements the program will alert you and a correction may be made. If all is well the program will prompt you for an address at which to store the routine. Two favourite addresses for this type of routine are the cassette buffer beginning at 828 or the machine code RAM area beginning at 49152. This latter one is very suitable as it will not be affected by BASIC programs. However why not use an address which is easy to remember such as 50000. After you have entered an address and the data is poked into memory, typing SYS followed by the address you

used will display the directory of the disk in the drive.

Another advantage of this utility is that it may be incorporated into your own Basic programs (using different line numbers if necessary). To do this add the data statements to your own program then change line 110 to read AD=49152 or suitable RAM location. Then read in the data early in your program in a loop such as in lines 120 to 150. To display a directory a subroutine could then be called which would include the line SYS 49152. Note: once you are sure the data statements are correct lines 140, 160, and 500 may be deleted as they are only a form of checksum.

When a disk has a long directory it will usually scroll off the screen before you have time to view it. *Relocateable Directory* has taken this into account and will pause after each 23 file names and wait for a key press before continuing. This enables you to peruse all file names without wondering what has disappeared off the top of the screen.

A few words for the technically minded. When selecting a RAM address for the location of this routine, make sure that there are at least 122 bytes available. If using the area from 49152 to 53247 for example, choosing a number such as 53200 would not allow enough bytes to store the code. If using the normal program RAM area from 2048 to 40960 remember that Basic programs begin at address 2048 and the data for array variables builds downwards from 40960. Locations somewhere in the middle of this area would be relatively safe provided your Basic program is not too large. The five bytes in line 200 of the data statements are machine code to clear the screen prior to displaying the directory. If you wish to delete this feature delete line 200 altogether and alter line 120 to read FOR X = 0 to 116. The checksum total CH then becomes 16921.

```

1 REM
2 REM
3 REM
4 REM
5 REM
100 PRINT
110 INPUT "ADDRESS" ;AD
120 FOR X = 0 TO 121
130 READ B:POKE AD+X,B
140 CH=CH+B
150 NEXT X
160 IFCH<>17734 THEN 500
170 PRINT
180 PRINT "SYS"AD"TO ACTIVATE":END
200 DATA 169,147,32,210,255
210 DATA 169,0,133
220 DATA 176,169,13,162,8,160,0,32
230 DATA 186,255,169,1,162,96,160,163
240 DATA 32,189,255,32,192,255,162,13
250 DATA 32,198,255,32,207,255,32,207
260 DATA 255,32,207,255,32,207,255,201
270 DATA 0,240,62,32,207,255,170,32
280 DATA 207,255,32,205,189,169,32,32
290 DATA 210,255,32,207,255,201,0,208
300 DATA 34,169,13,32,210,255,230,176
310 DATA 165,176,201,23,144,211,32,204
320 DATA 255,32,228,255,201,0,240,249
330 DATA 162,13,32,198,255,169,0,133
340 DATA 176,240,190,32,210,255,24,144
350 DATA 209,169,13,32,195,255,32,204
360 DAT 255,96
500 PRINT"ERROR IN DATA STATEMENTS"

READY.
```



# Public Domain Software

## Saturday Computer Services

Following the success of our special disk offer, we have decided to provide a new service to readers of *Australian Commodore Review*. Each month we will publish an up to date listing of our catalog. There will also be a more detailed listing of what is on one particular disk. You will be able to order any four disks for \$30.00 - that's including package and posting. Simply fill in the order numbers of the disks you want, and enclose a cheque or money order for thirty dollars made payable to Saturday Computer Services. Send to Public Domain Software, 19A Frederick St, Putney, 2112. Your order will be dispatched the same week we receive it.

### Disk: Administration - Order Number:AA

**Analysis 1:** An education oriented program which enables student marks to be entered and percentages worked out for each group. A total of 500 marks can be entered and there is provision for more. Will calculate the median, average, standard deviation, number of students passing or failing and percentage of students passing or failing. Simple and easy to use.

**Analysis 2:** Similar to the previous program but enables both student and teacher to calculate the median, average and statistics in relation to passing or failing grades. Again 500 but can be changed.

**Answer Box:** The teacher types the answers to questions on the students worksheets into the computer and the students use the Answer Box to complete the worksheet. A angry or smiling face will appear on the screen depending on a correct or incorrect answer. I

**Bonds:** This is a routine which is designed to assist students to be able to calculate a present value for bonds. It provides for the student to enter the coupon value, the deferrment and the interest rate per period and work out a present value.

**Dog:** In a reversal of roles, the student becomes the teacher and must settle a delicate issue involving one of the students. The situation is set out and various courses of action are available with the consequences for each also displayed.

**Exam:** Designed to enable the calculation of the grades of one student. The grades can be either final grades or semester grades and will give a letter grade, percentage grade and grade point average.

**Fight:** Once again a role reversal takes place. This time the student becomes a teacher who must settle a dispute between a student and a fellow teacher. Options and results are displayed.

**Grades:** A program designed to keep a record of the students academic performance. Grades for up to 35 students and 10 tests can be entered into the program. Results are sorted by grade and alphabet.

**Letter:** In this case the student becomes a teacher who is faced with an angry parent reacting by writing a letter to the newspaper. The teacher must decide how best to resolve the matter.

**Marks:** This will enable the organisation of the marks of the the class. The name of each student as well as the number of tests given so far and the average mark may be saved on cassette. Note that this program runs on the tape cassette and will not run properly on the Commodore 64 unless it is properly revised Instructions for this revision included.

**Mark Stats:** To calculate on a class level high and low marks, median and failure rate, the average and number and percentage of students in

each mark range.

**Sex Ed:** The student takes the role of the teacher who has a film on natural childbirth she wishes to show the class, the student must decide how to handle the situation and avoid angering the parents and community.

### Disk: Business - Order Number:BA

**Accounts:** A basic introduction, tutorial and explanation of procedures.

**Amort'n Table:** This program enables you to amortize a loan based on the information which you enter. There are five data items in total.

**Bonds:** See Bond section on Administration Disk

**Budget Account:** For better accounting records, this program will enable you to keep more permanent records which can easily be updated.

**Calender:** Enables you to view any year or month by simply typing in the year and the name of the month you wish to view.

**Credit Union:** Deals with percentages of loan and anticipated repayment time.

**Date Calender:** Allows you to enter a base date or starting date and calculate the number of days since or preceding any other date.

**Depreciation:** A tutorial explaining three methods of calculating depreciation of capital. The three methods are Straight Line, Sum of the Digits, and Double Declining Depreciation.

**F.I.F.O.:** Designed to help students develop basic accounting and math skills in relation to inventory items.

**Gross Pay:** Will help the student to learn how to calculate gross wages for an employee according to the time that the employee has worked.

**History Quiz:** A tutorial which asks the student 20 questions relating to the history and use of computers. The questions are multiple choice.

**Ice Cream:** The student becomes the owner of an Ice Cream Parlour and must keep his employees and customers completely satisfied and at the same time keep his business running at a profit.

**Investment:** Deals with investments and withdrawals and interest rates for these. There are various options available from the Menu screen.

**Lemonade:** Once again a program which is designed to help students understand the principles involved in basic money management and business skills. By running a lemonade stand for the summer, the student must best use his money, on loan from his parents, to buy and sell his lemonade.

Detach and send to : **SPECIAL OFFER** , 19a Frederick Street, Putney 2112

Name.....Address.....

.....Post Code.....

Daytime Phone.....Disk Required.....

**Cheque or Money Orders Only**

**Call (02) 808 1860 Now to reserve Order!**



# Getting the Best out of Disk Magazine Seven

by Andrew Farrell

*It's double sided, and full of programs ready to run! Andrew Farrell explains what's on Disk Magazine Seven and how to best use it.*

Disk Magazine Seven represents a big jump in value for money with the latest addition of Side B. Yes, our seventh issue is double sided - all the demo's and 128 Software are on the back, and the rest of the goodies are on the front.

Windows, the menu system used, has been further upgraded. The Diary and Notepad may now be SAVED or LOADED using the SAVE and LOAD DESKTOP option under the SPECIAL pull down menu. The program is also faster, with more improvements planned for our Number Eight Disk already in the programming stages.

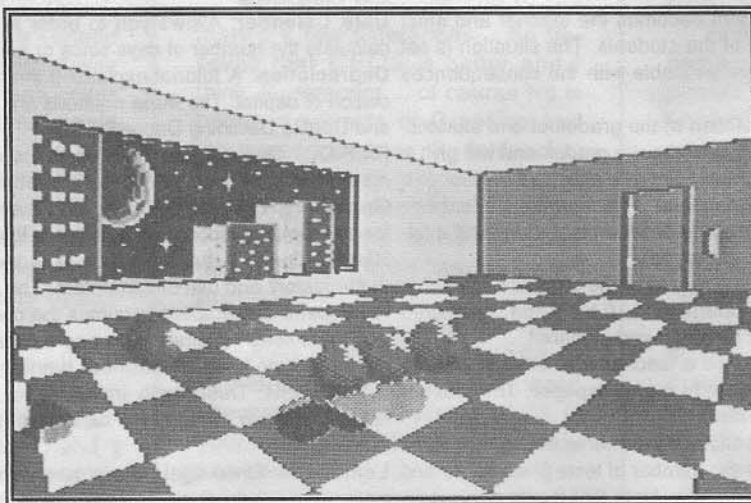
Loading and operation of the menu system is only slightly different from last month. An interim menu will now appear from which you may select 'W' to RUN the Windows menu, or 'T' to view the title screen - which incidentally was drawn using OCP's *Advanced Art Studio*. Further details can be found in the June *Australian Commodore Review*. The only major difference in the Windows system, is that certain programs will request you to insert side B of the disk. Simply remove the disk, flip it over, and reinsert, then press return once more on the program you were attempting to RUN.

## Magazine/Help

This month there are a few more articles than have been included of late. We plan to continue to increase this section of the disk in the future. Some of the file names have a dot after the name. This will also appear on the disk directory if

you load it using the LOAD"\$",8 command. These files cannot be run, as they are SEQuential files containing only text. The dot at the end of the file name distinguishes these files from the programs by the same name.

The news is updated several times during production to try and keep it up to date - we only run off the disks a few days in advance of their being despatched with your order. In this way we are also able to carry out corrections to the disk if any are found to be necessary. To date, no problems have been



found. The latest version of the disk may be identified by the fact that the **Dark Forest** program has sound effects added.

## Games Entertainment

This month the feature game is one that I wrote some years back, but has been substantially improved for inclusion on the disk magazine. It's a strategy

game that's a lot of fun to play with between two and four players. You can also play versus the computer, but that's not as interesting.

At the start each player is given a castle. This is a stronghold that is strategically easier to defend and better to attack from.

The idea is to take over the entire playing area by attacking other players, men from neighbouring squares containing your men. Each move you may either attack, or move men about. At the end of a turn each player is given as many men as he has portions of the country.

The remaining squares are occupied by the Zonks - inhabitants of the land who methodically work on any weaknesses of any player. It's best to spread your men over a number of squares at the start of the game, in order to maximise the number of men you get at the end of each turn - by the same token, don't spread them too thin!

Three other programs are included in the GAME/Entertainment category. **Joystick Tester** is good for checking out any suspected faults in your favourite stick. **Irish Jokes** is a collection of a few funnies by one of our columnists, Eric Holroyd. **Dice Roller** is useful for board games that require multiple dice throws and you're sick of people losing your dice.

## Demo's/128 Software

These programs are on side B of the disk, so to save time, flip the disk before pressing return on the program you want. There are eleven demo's in all, some of which contain some brilliant graphics as





usual. However this month, we have a musical extravaganza by the name of 'Classics'. This program plays all the best music from your favourite arcade games. On some versions of the 64, and depending what fast loader you're using, RUNNING CLASSICS may not work. For some reason an out of memory error may occur. If so, press RUN-STOP and RESTORE simultaneously then type RUN and press return. All is now well! (We are working on fixing this, so your version of the disk may work.)

For the 128, there's two quickies. **Bootmaker** - makes auto boot disk that go into the right mode and **Convert Basic** for changing between Basic 7.0 and Basic 2.0.

## Printers/Publishing

A very useful utility for users of *Printshop*, *Newsroom* or *Printmaster* is the conversion program. You guessed it - you can now swap clip-art and graphics between these three popular programs! To top it off, you can also print out your *Printshop* graphics for quick reference to what you have on file.

For the musically minded, there's a utility that will print chords in various keys on a printer. Full instructions are found in the Magazine/Help section.

## Utilities/Disk

A real pocketful here. First of all there's a program called **Anti-Isepic** that strips off that annoying Isepic loader so you can use the single file remaining with your own fast DOS. The **Sledge-**

**hammer**, complete with digitised music from the song by the same name, is a program compactor. If you need extra space on your disks, or you just want programs to LOAD faster try running them through this little ripper. The program will ask for a value for location \$0000 - the normal one to enter is 55.

**Fast Format**, written by the boys at Cockroach Software, is a brilliant programming trick that enables super speedy disk formatting or NEWing. (OPEN

15,8,15,"N0:diskname,id"). Forget over two minutes, this one takes around twenty seconds!

**Renumber**, and **Renumber Inst** allow you to renumber BASIC programs - one feature that 128 owners enjoy that us 64 users have to put with, unless you use this utility.

**Graphics Editor** is especially for budding games and graphics designers. Written by Andrew Crowther, famous programmer and media personality, it allows you to design your own custom sprites and graphic characters. Full machine code makes this about the fastest editor around.

### Sidekick

**3.1c**, the compiled and slightly renovated version of a famous utility. **Sidekick**, like in the old westerns, is a friend that's always by your side - well, almost. Unlike its counterpart on IBM compatibles, this one

doesn't have a notepad or diary and you can't get it on screen by pressing both shift keys. But, it is a friend like a sidekick and thus the name still fits.

Cutting a long story short, it's a collection of all the useful disk utilities all rolled into one mega program. Menu driven, with help screens and more, it's easy to use and indispensable to the organised

type that most of you are - right?

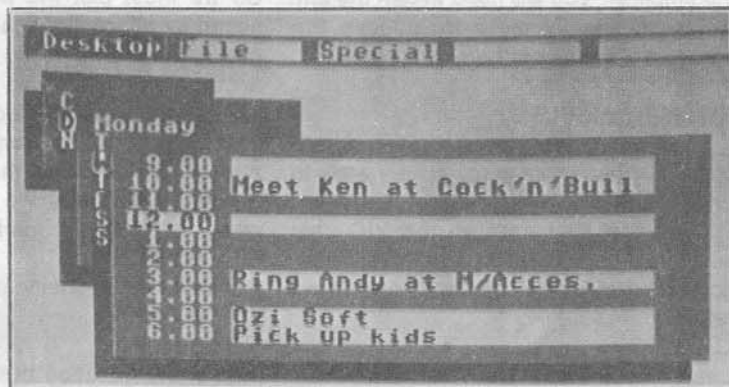
## Home/Business

Final category, where you find some of the best excuses to the wife as to why you bought this disk magazine. For a start there's a **Home Finance** program, so you'll actually be saving money by the time next month comes around - enough at least to get the Number Eight disk magazine.

Eleven menu options provide functions such as investment valuation, depreciation rates, loan payments, and cost of borrowing. All very useful in the credit conscious society that we live in.

For the technically minded, we have also included the latest version of **Oscilloscope**. With the right hardware device you can see the output of your stereo on screen (full explanation in the Magazine/Help section). And finally, for sending whizz bang letters to other computer nuts, try using **Ultimate Writer**.

This program records your keystrokes and saves them as a runnable program. It begins by asking you for a filename to save everything under, so be sure to enter a unique name, and to insert a disk that there is space on. (There is a little on Disk Mag Seven, but I suggest you use a different disk).



Give a copy to another person containing greetings, or perhaps a secret message, or maybe even instructions on how to improve his golf game. (*World Class Leaderboard* of course..) Well, that about sums it up. If you get really stuck ... call 808 1860 during business hours.



# OSCILLOSCOPE

by Andrew Baines

*Back in the February '87 edition, Kyle Arnold presented the original Oscilloscope. It was a bit slow, no scrolling occurred as in a real oscilloscope and you didn't really know which part of the signal put into the computer was where on the screen.*

The adaptor for the joystick port is the same, as are two of the routines (line 470 on of the original program is the same as lines 100-155 and 51200-51376). One is the 'clear hi-res screen,' the other being the 'plot point,' routine. If you wish, these can be left out provided the original is run before this version.

Another change is there is no facility for printing out on a 1520 plotter. To solve this, simply wait until the required wave is on the screen, press stop, and load and run your favourite screen dump program. To hear the sound while it is going into the 64, use a small amplifier and wire a speaker in parallel with the input into the transformer. For the uninitiated, solder the wires from the speaker on the inputs into the transformer with the wires from the amplifier. You will need to turn the amplifier up slightly more to achieve the same size waves on the screen.

## HOW IT WORKS

The entire program is written in machine language, but is really very easy to understand.

The first part sets up the VIC chip scroll location, the program scroll location and the screen colours (for when we return to BASIC).

LDA #\$07

Load Accumulator with the value 7.

STA\$D016

Store in the Video Chip's scroll location.

This sets up our fine scrolling, the scroll that is pixel by pixel. It tells the screen to move seven pixels to the right, shrink the border down to 38 columns and turn off multicolour mode.

STA \$0334

Now we'll set up our own register for remembering where the screen is up to,

scrolling wise.

Since the accumulator remains the same after a store instruction, the above instruction will work.

LDA #\$00

Load the accumulator with the value 0 (zero).

STA \$D020

Put the accumulator in the memory locations that determine the border and screen colours. First the border, STA \$D021

now the screen itself. NOTE that this does not affect the high resolution screen, only the text screen for when we return to BASIC.

Even though we move the screen, the locations to plot the points on don't move, they simply are hidden from view. So we must plot the points in the last seven locations (vertically) that are now under the border. To do this, we load the accumulator with zero (this was done above) and store in a location that will be used for counting from one to eight, through all the pixels that are under the border. In this way we ensure that the pixels are plotted properly.

STA \$0336

Set location for plotting the points

JSR \$C800

Set up screen

I won't describe this routine, except to say that it turns on the high resolution screen, clears it and puts the colour information into the colour memory. NOTE that the colour memory is usually the text screen memory, it is only while the high resolution screen is on that it is used as colour memory.

On with the real guts of the program! First, the routine at \$C480 plots the points needed and returns.

PLOT: JSR \$C480

Jump to subroutine at \$C480

\$C480: LDA \$D419

This instruction loads the accumulator with the value in the location \$D419. The sound interface device (SID) inside your C64 has analog to digital converters inside it. We are using one of these to retrieve the signal from the outside world.

After being fed into the computer the signal finds its way into the SID chip and is converted into a form of data that our program can understand. It is then placed into the location \$D419. That is why we access \$D419.

STA \$FD

Store the accumulator in location \$FD.

This is for use later on.

LDX \$0336

Our location for plotting points, remember?

INX

Add one to the X register

CPX #\$08

Compare X with the value 8.

BNE CONTINUE

If X is not yet 8, Branch to CONTINUE. X is 8, therefore we must reset it to zero.

LDX #\$00

Load x with the value zero.

CONTINUE: STX \$0336

Store the X register in the location for plotting points.

TXA

Transfer the contents of the X register into the Accumulator.

CLC

Clear the Carry flag ready for an addition.

ADC #\$38

Add the accumulator and the Carry flag (this is why it must be set to zero) and the value \$38 (56 decimal), which is the number of pixels across the screen to the pixel just under the border in the beginning of the program. If the location \$0336 had 6 in it, this would have been transferred to the accumulator for addition with the operand (number after the



## PROGRAMMING

ADC) and the carry flag to give \$3E (62 decimal). The result is left in the accumulator.

The plot point routine we are using requires that the X position of the point on the screen be in the locations \$FB/\$FC (251/252 decimal).

STA \$FB

This must be done in LO/HI byte format, and the accumulator has the low byte in it.

LDA #\$01

Load the Accumulator with the value 1 (the high byte).

STA \$FC

Store the Accumulator in the location \$FC (the location for the high byte).

LDA \$FD

Remember we stored the info from the input in here at the beginning of this routine? Now we are going to save it again, as the plot point routine uses \$FD as the Y coordinate for the point we want plotted, and destroys the value as it uses it.

STA \$02A7

Store the Accumulator in location \$02A7. JSR \$C870

Jump to SubRoutine at \$C870 to plot a point.

LDX \$02A7

Load the X register with location \$02A7.

The next part is complicated, but we'll try to muddle through, ok?

Now we have to join the point we have just drawn to the last point drawn. That is why we put the value in \$FD into \$02A7. So \$02A7 holds the current value,

STX \$02A9

\$02A9 does as well and \$02A8 holds the value of the point plotted last time through. So now we must compare the current value with the old one and see if the current one is larger, smaller or the same.

CPX \$02A8

X holds the new, \$02A8 holds the old.

If the two are equal, the Carry flag will be set and the zero flag will be set. If the old value is greater, the carry will be clear and the zero flag will be clear. If the new value was less the carry will be set and the zero cleared.

We don't need to test all of these conditions, only a few.

BCS MORE

If the carry is set, the new value is more, so we must Branch to MORE.

```

10 z1=50208
20 read a:if a=256 then 35
25 c1=c1+a
30 poke z1,a:z1=z1+1:goto 20
35 ifc1<>9897thenprint"error in lines 50
208 to 50288":end
40 z2=50304
50 read a:if a=256 then 65
55 c2=c2+a
60 poke z2,a:z2=z2+1:goto 50
65 ifc2<>14312thenprint"error in lines 5
0304 to 50400":end
70 z3=50756
80 read a:if a=256 then 95
85 c3=c3+a
90 poke z3,a:z3=z3+1:goto 80
95 ifc3<>7726thenprint"error in lines 50
756 to 50796":end
100 z4=51200
110 read a:if a=256 then 125
115 c4=c4+a
120 poke z4,a:z4=z4+1:goto 110
125 ifc4<>10582thenprint"error in lines
51200 to 51280":end
130 i=51312
140 read a:if a=256 then 155
145 c5=c5+a
150 poke i,a:i=i+1:goto 140
155 ifc5<>7738thenprint"error in lines 5
1312 to 51376":end
200 b=50432:in=b+2:f=8192:gosub300:pokeb
,232:b=b+1:gosub360
210 in=b+2:f=8448:gosub300:pokeb,232:pok
eb+1,224:pokeb+2,64:b=b+3:gosub360
220 goto500
300 pokeb,162:pokeb+1,0:b=b+2:fori=fto16
192step320
310 pokeb,189:n=i:gosub400:pokeb+1,1+b:p
okeb+2,h
320 pokeb+3,157:pokeb+4,1:pokeb+5,h:b=b+
6:next:return
360 pokeb,240:pokeb+1,3:pokeb+2,76:n=in:
gosub400
370 pokeb+3,1:pokeb+4,h:b=b+5:return
400 h=int(n/256):l=n-(h*256):return
500 open15,8,15,"i0"
510 open3,8,1,"0:cro v2 '50208',p,w"
520 poke157,128:poke251,32:poke252,196
530 poke780,251:poke781,180:poke782,200
540 sys65496:close3:close15:end
50208 data 169,7,141,22,208,141,52,3
50216 data 169,0,141,32,208,141,33,208
50224 data 141,54,3,32,0,200,32,128
50232 data 196,174,52,3,202,224,255,208
50240 data 8,32,0,197,162,7,24,144
50248 data 5,160,1,136,208,253,142,52
50256 data 3,142,22,208,32,225,255,208
50264 data 221,169,247,45,24,208,141,24
50272 data 208,169,223,45,17,208,141,17
50280 data 208,169,147,32,210,255,96,234
50288 data 234,256
50304 data 173,25,212,133,253,174,54,3
50312 data 232,224,8,208,2,162,0,142
50320 data 54,3,138,24,105,56,133,251
50328 data 169,1,133,252,165,253,141,167
50336 data 2,32,112,200,174,167,2,142
50344 data 169,2,236,168,2,176,33,174
50352 data 167,2,232,142,167,2,236,168
50360 data 2,240,8,134,253,32,112,200
50368 data 24,144,236,173,169,2,141,168
50376 data 2,96,234,234,234,234,234,234
50384 data 240,241,174,167,2,202,142,167
50392 data 2,236,168,2,240,229,134,253
50400 data 32,112,200,24,144,236,234,234
,256
50756 data 169,56,133,251,169,33,133,252
50764 data 160,0,162,0,169,0,145,251
50772 data 230,251,208,2,230,252,232,224
50780 data 8,208,241,230,252,165,251,24
50788 data 105,56,133,251,144,2,230,252
50796 data 166,252,224,64,208,218,96,234
,256
51200 data 173,24,208,9,8,141,24,208
51208 data 173,17,208,9,32,141,17,208
51216 data 169,32,133,93,169,0,133,92
51224 data 162,31,160,0,145,92,136,208
51232 data 251,230,93,202,208,244,160,63
51240 data 145,92,136,16,251,169,0,133
51248 data 92,169,4,133,93,169,16,162
51256 data 3,160,0,145,92,136,208,251
51264 data 230,93,202,208,244,145,92,160
51272 data 231,145,92,136,208,251,96,234
51280 data 234,256
51312 data 165,251,41,7,170,56,169,0
51320 data 133,90,106,202,16,252,133,89
51328 data 165,251,41,248,133,92,165,253
51336 data 74,74,74,133,91,74,102,90
51344 data 74,102,90,101,91,133,91,165
51352 data 253,41,7,101,90,101,92,133
51360 data 90,165,91,101,252,101,255,133
51368 data 91,160,0,177,90,5,89,145
51376 data 90,96,2,256
ready.

```



## PROGRAMMING

LESS: LDX \$02A7

The new value was less, so we come here and retrieve the new value.

INX

Increment it.

STX \$02A7

Store it.

CPX \$02A8

Is it the same yet?

BEQ END

If yes, END.

STX \$FD

Store the value ready for plotting one of the joining points.

JSR \$C870

Plot point.

CLC

These instructions will allow you to Jump a short way, but still let you move the routine (this routine can't be moved, this is only example).

BCC LESS

END: LDA \$02A9

Retrieve the new number

STA \$02A8 and make it the old number for next time

RTS

Go back to the main routine.

MORE: BEQ END

If the two are equal, branch to END.

LDX \$02A7

Load X with the new value

DEX

Decrement it.

STX \$02A7

Store it.

CPX \$02A8

Does it equal the old yet?

BEQ END

If yes, END.

STX \$FD

If no, plot the point.

JSR \$C870

CLC

And go back for another try

BCC MORE

### (MAIN ROUTINE)

Now we have to update the screen scroll.

LDX \$0334

This is the countdown to coarse scroll and the fine scroll location.

DEX

DEcrement X.

CPX #\$FF

Has our location gone below zero? (If a

location is decremented while it is zero, it will become \$FF (255 decimal)).

BNE NOSCROLL

If not, go to NOSCROLL, if we are ready for a coarse scroll, continue.

JSR \$C500

This routine does a coarse scroll and clears the right hand edge of the screen for new data.

LDX #\$07

Reset \$0334

NOSCROLL: STX \$0334

Put the new value

STX \$D016

for scrolling in \$0334 and \$D016, the location the computer uses to fine scroll.

Last of all, a few cleaning up operations.

JSR \$FFE1

Test the Stop Key.

BNE PLOT

If it wasn't pressed, continue with the program,

LDA #\$F7

If it was pressed,

AND \$D018

restore the low

STA \$D018

resolution

LDA #\$DF

screen

AND \$D011

STA \$D011

LDA #\$93

and clear it

JSR \$FFD2

(equivalent to ?CHR\$(147))

RTS

and return to BASIC.

You may be wondering what the routine at 200 in the Basic Loader does. It sets up the coarse scroll routine in memory, but because the routine itself is so repetitive and long, this is a much more (as my maths teacher would put it) 'elegant' way of entering the data.

### ROUTINES

\$C420/50208 - main routine

\$C480/50304 - plot lines from \$D419 (SID chip Analog to Digital Converter)

\$C500/50432 - coarse scroll - if you want to move it in memory, change the value of 'B' line 200, change 200 to read '200 POKEB,96:END' and type it in separately for use in your own programs (it will NOT move colour)

\$C644/50756 - pokes zeros down the right hand side of the screen ready for new data.

\$C800/51200 - sets up high resolution screen and colour

\$C870/51312 - plots a point

When you're ready to start, ie after typing in the program and saving it, type run and the machine language data will be poked in and saved as long as all the data is correct. To change the filename it is saved under, line 510 holds the filename: ie "0:CRO V2 '50208',P,W" the filename is "CRO V2 '50208'".

Now type 'SYS 50208' (okay, so its a bit obscure - you'll get used to it!) and plug in your input plug.

The screen should go black, and a white line will appear as soon as the plug is inserted. If the screen appears to jump a bit, don't worry, the computer is doing differing amounts of work for each line drawn, as each is a different length. Overall, the best way to get rid of the jump is to turn down your amplifier and have only small lines drawn.

Happy Computing!

**BACK  
ISSUES**  
are still available  
for only  
**\$2.00** each

Just give *Tristan*  
a call

on

**(02) 398 5111**







**If you own an Apple IIc,  
you'd have to add all this**



**to match the versatility, expandability  
and higher intelligence of the  
new Commodore 128**  
(and it costs less too).

The new Commodore 128™ personal computer is breakthrough technology at a breakthrough price. It outshines the Apple® IIc in performance capability, performance quality and price. It is expandable to 512K RAM while the IIc isn't expandable at all.

And the new Commodore 128 has a numeric keypad built right into its keyboard that makes crunching numbers a lot easier. And the Commodore 128 has graphic and sound capabilities that far exceed those of the Apple IIc. But the most important news is that

the new Commodore 128 jumps you into a whole new world of business, productivity, education and word processing programs while still running over 3,000 programs designed for the Commodore 64!™ That's what we call a higher intelligence.

**COMMODORE 128**  A Higher Intelligence

 **commodore**  
**COMPUTER**  
Keeping up with you.

BEEMAN MAYRHOFFER STOTT/CD422



CARTOON'S MOST  
ELUSIVE CHARACTER HAS  
FINALLY BEEN TRAPPED.

# ROAD RUNNER

THE ARCADE SMASH HIT  
THAT RECREATES THE SPEED  
AND EXCITEMENT OF THESE  
CLASSIC ENCOUNTERS.



Young or old, whatever your age everyone enjoys the antics of the cunning Road Runner as he baffles and bemuses poor Wile E. Coyote. Or does he?...

This is your chance to really find out as you take on the role of Road Runner in this comic, all action extravaganza that recreates these nail biting chases and the fast moving excitement to perfection. Speed through canyons and along the highways following the trail of birdseed left for you to feed on (is this the first trick???) Dodge your way round the onrushing trucks keeping an eye out for the perilous mines and feather ruffling, leg busting oil slicks. What dastardly plans has the sleazy Wile E. Coyote got in store for you as he lurks in hiding, cowardly awaiting his moment to enjoy a succulent roast of "Road Runner and French Fries". We're sure you'll overcome all the dirty tricks he can throw at you with ease, agility and grace and a haughty "Beep Beep". Overcome them that is if you've got nerves of steel, the reflexes of a wildcat and the speed of the fastest bird on two legs, otherwise its sorry, goodnight and "Burp Burp"!!!



**Available for CBM 64/128, ATARI ST  
and AMSTRAD home computers**



Distributed by  
Ozisoft Pty Ltd  
33/8-24 Kippax St,  
Surry Hills, NSW, 2010  
Ph (02) 211 1266



SCREEN SHOTS FROM ARCADE VERSION.



Distributed by  
Ozisoft Pty Ltd  
33/8-24 Kippax St,  
Surry Hills, NSW, 2010  
Ph (02) 211 1266

